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A
DISSERTATION
OF THE
Small Pox;

By *Daniel Phillips,*

At his Commencing

Doctor of Physick

IN THE
University of *Leyden* in *Holland*,
in the Year MDCXCVI.

Translated by T. E.

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DISSERTATION

OF THE

Small Box



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University of London
in the Year MDCCXCV

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J. Ward, near St. Dunstons-Hall,

V I R O

*Natalium splendore, Morum suavitatem
Virtutis amore, Celeberrimo*

Gulielmo Penn

Armigero, Pensilvaniæ Gubernatori,
amicorum optimo:

U T E T

V I R O

*Non minus ingenii singulari acumine,
quam in arte suâ mirâ felici-
tate, admodum conspicuo,*

Thomæ Lower

Medico Londinensi,

*Hunc Lucubrationum suarum fœtum
primogenitum, Beneficiorum in se
Collatorum memor, ea, quâ decet,
submissione*

D. D. D. Q.

AUCTOR.

P R Æ F A T I O.

Cum inter arcana naturæ variorum Natura diu latuisse videatur, de hujusce morbi ætiologia quasdam cogitationes proferre non inutile æstimavi, non tam quod credam eas undiquaque probatum iri, quam ut eorum animos exstimulem, qui genium meo fæliciores, ad hoc opus satis imperfecte relictum, limatius subactiusque præstandum, adepti sunt. Nullus tamen quam proponam Hypothesin, mei unius cerebri prolem, omni patrono carentem, in lucem prodire existimet. Cum me nonnihil lucis a Franciscio de le Boe Sylvio, Willisio, Sydenhamio, quorum verbis æque ac opinionibus usus fui quibusdam in locis, fænerasse non diffitear. Non illis assentire possum, qui intra angustos Europæ cancellos

The P R E F A C E.

W Hereas the Nature of the Small Pox may seem to have lain hid a long time among the Secrets of Nature, I have thought it may not be unuseful to publish some Thoughts of the *Ætiology* of this Disease: Not so much that I believe they will be every where approved of, as that I may excite some of a more fruitful Genius to perform this Work, lest imperfect enough, more exactly and compleatly. Yet let none think the Hypothesis, which I shall propose, the Off-spring of my own Brain, or to come forth without any Patron; seeing I confess I have borrowed some Light from Francis Sylvius de le Boë, Willis, and Sydenham, whose Words, as well as Opinions, I have used in some places. I cannot assent to those, who confine this Disease within the narrow Limits of Europe; whose

P R Æ F A C I O.

cancellos hunc affectum coercent, quorum sententiam Musæolum nimis redolentem, peregrinantium observationes falsam fictamque omnino demonstrant. Hisce enim meis oculis Africanum quendam pustulis variolosis obsessum, in Guinea septentrionali, ubi pro aliquot menses degeram, conspexi. Quamvis autem de lue venerea scribere non susceperim, quandoquidem tamen cum variolis propter exanthemata habeat aliquam affinitatem, eam quoque in Guinea non solum epidemice desævire observabo, sed etiam herbis specificis, sine ullo evacuantium genere, curari: quod Mercator fide dignus, qui istas regiones per multos menses hoc morbo laborasse, tandem ad incitas reductum ac a Chyrurgis Europæis pro deplorato habitum, Nigritarum quendam remedia contra hoc malum probe callentem accersiri jussisse, & ejus auxilio unicus herbarum foliis & radicibus, sine Emeticis

THE PREFACE.

Opinion, *favoured too much of the Closet, is demonstrated to be Erroneous and Imaginary by the Observations of Travellers. For I my self have seen an African full of the Small Pox in North Guiny, where I lived some Months. And though I have not undertaken to write of the Venereal Distemper, yet in as much as it hath some affinity with the Small Pox, on the account of its breakings out, I shall observe, that it is not only Epidemical in Guiney, but is also cured by Specifick Herbs, without any sort of Evacuation: Which a Merchant, who was a Person of Credit, and had dwelt many Years in those parts, inform'd me of; and that I might be induced the more readily to believe him, he said, He had had that Disease himself for many Months; and at length, being reduced to great Straights, and left off as incurable by the European Chyrurgeons, he ordered a certain Negro, who had good Skill in Remedies against this Disease, to be sent*

P R Æ F A T I O.

ticis, Catharticis, Sudoriferis, vel Mercurialibus pristinam sanitatem recuperasse. Illum vero hac lue pessime laborasse à consociis passim accepi, atque illius confessioni Authoritatem conciliabant stigmata faciei ejus iniusta. Denique hoc unicum ab hujus ævi obtrectatoribus, qui nihil nisi quod ipsi faciunt, rectum putant, vehementer postulo, nempe ut priusquam hanc lucubratiunculam ore maligno lacerent, alteram a Phænomenis non minus abludentem, sed Rationi & Experientiæ congruentiorem, taloque firmiori innixam, Hypothesin adferant.

I. Inter

The PREFACE.

for, and by his assistance recovered his former Health, only by the use of the Leaves and Roots of Herbs, without any Emeticks, Catharticks, Sudorificks, or Mercurials. And I have in divers places heard, by his Acquaintance, that he was very bad of this Distemper; and the marks in his Face confirmed his Confession. Lastly, This one thing I earnestly desire of the Detracters of this Age, who think nothing well done but what they themselves do, that before they malign this Lucubration of mine, they would give another Hypothesis no less dissentaneous to the Phenomena, but more conform to Reason and Experience, and built upon a firmer Basis.

THE

(1)

Disputatio Medica
Inaguralis de
VARIOLIS.

I.

INter veteris medicinæ scriptores ægritudinis, quæ passim apud Authores variolarum nomine designatur, tam raro fit mentio, & tam jejuna descriptio, ut non paucis dubium fuerit, an hoc malum, quod nunc ubique terrarum vel sporadice vel epidemice desævit, priscis temporibus innotuerit. Cum vero natalium morbi cognitio, qua sc: hominum ætate corpora primum invasit; ad naturam ejus explicandam, methodumve medendi rite institnendam, parum vel nihil faciat,

A
DISSERTATION
OF THE
Small Pox.

I.
THE ancient Physical Writers do so seldom mention, and so sparingly describe the Disease, which goes under the Name of the Small-Pox, amongst Authors, that it may be a doubt to many, whether this Distemper which now rages more or less in all Nations, was known in former Ages. But whereas the knowledge of the Original of the Disease, viz. in what Age it first invaded Man, can contribute little or nothing towards the explaining its Nature, or teaching a right method of its Cure; I purposely
omit

faciat, sententias Medicorum inter se oppositorum de huius morbi antiquitate, consulto omittam.

II. Hisce prælibatis, paucula quædam nominis Ætymologiam spectantia, breviter præmittere non inutile iudicavimus. Hujus nomen vel a variando, nam cutis est varia in hoc morbo, denominationem accepit: vel quod magis nobis arripet, a varis quoniam vari adinster in Corporis superficiè extuberant Variolæ. A Plinio papularum, a Græcis *Ἐσάνθημα* vocabulo designantur.

III. Post vocis Explicationem, pergo ad huius morbi Definitionem seu potius Descriptionem, atque ut nobis videtur, describi potest in hunc modum, quod sit Sanguinis Coagulatio, cum nimia ejus Effervescentia ut plurimum conjuncta, Pustulis modo dicretis, modo confluentibus, quæ in cuti vera pariter ac cuticula proveniunt, pro ratione Acidi Stomacalis connati, plus minus

omit the different Opinions of Physicians, among themselves, concerning the Antiquity of this Disease.

II. These things considered, I think it may not be amiss briefly to premise some few things concerning its Etymology. The Latin Word Variolæ, is either a variando, from varying; for the Skin is altered in this Disease: Or, which seems better to us, a varis, from Warts; because the Variolæ, or Small Pox, break out like Warts on the Superficies of the Body. By Pliny it is call Papulæ, Wheals; and by the Greeks Ἐξανθήματα, or Efflorescences.

III. After the Explication of the Word, I proceed to the Definition, or rather Description of this Disease; and as it seems to me, it may be described after this manner, viz. That it is a Coagulation of the Blood, for the most part accompanied with too great an Effervescence, with Pustles, sometimes separate, sometimes confluent, which break forth in the true as well as skarf Skin, according to the state of the connate
Acid

nus massam sanguineam coagulantis, magnoque aliorum Symptomatum apparatu, quibus œconomia animalis (velut in Febribus solenne est) varie preturbatur.

IV. Affectionis hujus differentię plures occurrunt. Prima juxta Febbris concomitantis naturam & morem, hæc enim benignę intermittentisque ritu, sine ulla Symptomatum vehementia, illa verò malignę petechiis notatę ritu, & cum Maxima aliorum horrendorum Symptomatum farragine stipata, varioloso incumbit. Secundo respectu Pustularum, notabile discrimen exurgit, quippe hæ interdum sunt distinctę, regulares, acuminatę, albę, & circulo cinguntur rubro, ac sine gravi naturę luctu erumpunt. Aliquando vero sunt cohærentes, confluentes, depressę, lividę, violaceę, cum maculis purpureis vel eruptione miliari interpunctę, lividoque margine obsidentur. Tertio ratione varii ejus stadii, hoc enim Pustularum

Acid of the Stomach, coagulating the Mass of Blood, more or less, with a great appearance of other Symptoms, by which the animal Oeconomy (as is usual in Feavers) is variously disturbed.

IV. There occur many differences of this Affection. First, according to the nature and manner of the Fever accompanying it: For sometimes it invades the Sick like a benign Intermittent Fever, without any violent Symptom; other whiles after the manner of a Malignant, mark'd with spots, it's accompanied with a great many other dreadful Symptoms. Secondly, there arises a notable difference with respect to the Pustules; for sometimes they are distinct, regular, acuminated, white, and compass'd about with a red Circle, and break out without any great disturbance of Nature. Sometimes they are coherent, running together, or fluxed, flat, livid, blew, with purple Spots, and have Miliar, or small Eruptions between them, and are compass'd about with a blew Margin. Thirdly, On the account of its various Stages
or

larum cohorte associatur, illud autem sine istarum vestigiis omnino peragitur: & quoad Symptomata, stadium unum ab altero, non minus quam morbi specie diversi, discriminatur. Hisce metis a se invicem longe remotis, a Medico non apprime pensiculatis, ægre quis possit veram hujus morbi ideam, vel methodum therapeuticam rationi comprobatam, juxta diversos stadiorum gressus stabilire.

V. Hisce præmissis, operæ pretium est, ut stadiorum numerum & quantum temporis, in unoquoque discretarum stadio (quæ confluentium ubique norma habenda est) juxta naturæ legem impenditur; & quot mutationes Pustulæ jugitur subire soleant, observemus. Quoad primum, tria variolarum stadia observatu dignissima occurrunt, nempe Apparatus, Augmentum, & Exarescentia. Nec miretur quispiam me nullum de statu habuisse

or Periods ; for one is accompanied with a multitude of Pustules, another is perform'd without the least appearance of them : And as to the Symptoms, one Period or Stage is distinguished from another, no less than Diseases of a different Species ; if these bounds, far distant from one another, are not well considered by the Physician, he can hardly form a true Idea of this Disease, or propose a rational method of Cure, according to the divers progresses of its Periods or Stages.

V. These things being premised, it is worth our while to observe the number of its Stages, and how much time is spent, according to the Law of Nature, in every Stage of the separate Pox, (which is every where to be accounted the Rule of the Confluent, or Flaxing Pox) and how many Changes the Pustules are wont to undergo. As to the first, there are Three Stages of the Small Pox worth our Observation, viz. The Appearance, Increase, and Drying. Nor let any one wonder, that

habuisse Sermonem, nam cuius accurate perpendenti, illum ab augmento ac exarescentia discriminare admodum difficile erit, quoniam simul ac in pedibus atque manibus Pustulæ ad summani molem evectæ sunt, in facie exarescere incipiunt.

VI. Quoad stadiorum durationem, Apparatus interpunctarum quatruiduo, nisi Regimine nimis calido, vel Medicamentis perperam adhibitis, magnum Naturæ opus interturbetur, absolvitur. Et apparatus indiscretarum totum illud tempus sub se continet, quod a primo morbi ingressu, absimitur, usque dum plena Pustularum eruptio inchoatur. Exactis hisce quatuor ægrotationis primis diebus, augmentatio exordium capit, & interposito quinque dierum spacio peragitur; nec Pustulæ sæliciter subsident, priusquam ad summum fastigium evehuntur, quæ ad nonum usque diem, hujus stadii novissimum, continuo

that I say nothing of the state or height of this Disease; for whoever accurately considers the matter, will find it very difficult to distinguish it from the Increase and Drying away of the Pox; because as soon as the Pustules are at their height in the Hands and Feet, they begin to dry in the Face.

VI. As to the duration of the Stages or Periods; The appearance of the distinct Pox is performed in four days, unless the great Work of Nature is interrupted by too hot a Government, or by Medicines unduly applied. And the appearance of the indistinct or fluxing Pox, continues all that time, which is taken up from the first invasion of the Disease, until the full eruption of the Pustules is begun. These four first days of the Sickness being over, the Increase begins, and is finished in the space of five days: Nor do the Pustules fall successfully off before they are at the height, which ought to increase by a continual conflux of congealed Filth, until

continuo colluviei congelatæ ap-
pulsu augescere debent. Quinque
augmentationis diebus jam elapsis,
ultimum stadium, quod quatruiduo
consummatur, subsequitur; in quo
fixa quadam lege tumores undiqua-
que recedunt, Exanthemata scabie
obducuntur, Crustulæque exsiccatæ
defluunt.

VII. Tanta est inter medicinæ
Proceres, qui causis variolarum in-
vestigandis insudarunt, diversitas
& ratio quare plerique homines,
semel in vita huic morbo sint ob-
noxii tam varia adfertur, ut omnes
horum Hypotheses recensere, non
solum lectoribus inutile, sed tædio-
sum videretur; Nonnullorum tamen
opinionem paucis hic loci depingam.
Avicenna Medicus cœvorum facile
Princeps reliquique Arabes prope
omnes, ejus vestigia prementes, im-
puritatem sanguinis materni, quo
Infans in utero nutritur, causam
hujus mali proegumenam esse statu-
erunt; huic autem Hypothesi licet
Expe-

until the ninth and last day of this Stage. Five days of increase being past, the last Stage follows, which is finished in four days; in which, by a certain fixt Law, the Humours every where depart, the Pox is scabb'd over, and the Crusts, being dried, fall off.

VII. There is so great a difference among the chiefest of Physitians, who have laboured to find out the Cause of the Small Pox; and they give so various Reasons why most Men, once in their Life, are obnoxious to this Disease, that it would be tedious, as well as unprofitable for the Readers, to recite all their Hypotheses. Yet I will here give, in short, the Opinions of some of them. Avicen, the Prince of Physitians, that were his Contemporaries, and almost all the rest of the Arabians treading in his Steps, assigned the impurity of the Mother's Blood, with which the Infant is nourished in the Womb, as the Progenient or inwardly moving Cause of this Evil. This Hypothesis,

Experientia quotidiana, cultro anatomico Judice, refragetur, quam plurimos tamen haud inferioris notæ Asleclas in hunc usque diem obtinuit. Hanc Arabum sententiam Argumentis non levibus refellerunt Gentilis, & Mercurialis. Hujus autem Hypothesis vice, aliam variolas, sc. Pro morbo Hæreditario habentes constituerunt, quæ non multo firmiori basi quam prior jam eversa, suffulcitur, & a Dan: Sennerto radicitus destruitur. Fernelius hoc malum à Causa quadam Cælesti in actum deduci statuit, quæ Opinio à Mercuriali luculenter refutatur. Alii à Veneno, alii à Causis Occultis, exanthematum natales deducunt. Quam sint arduæ & abstrusæ, quam spissa caligine obruantur Variolarum Causæ, ex præmissis facillime colligitur. Si igitur in re ipsius Orci tenebris haud minus obscura Sententia nostra ab aliis differat non usque adeo mirum videri debet.

thesis, tho' daily Experience contradicts it, the Anatomical Knife being Judge, hath yet obtained many Followers, of no small Note, unto this very day. This Opinion of the Arabians has been confuted by Gentilis, and Mercurialis. by no light Arguments. Instead of this Hypothesis they established another, viz. That the Small Pox is an Hereditary Disease, which was establish'd on a Foundation not much firmer than the former; is now overthrown, and utterly destroyed by Daniel Sennertus. Fernelius assigns this Evil to be brought into act by a certain Cœlestial Cause; which Opinion is clearly Refuted by Mercurialis. Others deduce the Original of the Small Pox from Poyson; others from Occult Causes. How hard and abstruse, and with what thick Darknes, the Causes of the Small Pox are overwhelm'd, may easily be collected from the Premises. If therefore, on a Subject so very obscure, my Opinion varies from others, it ought not to be look'd upon as strange.

VIII. Hoc modo brevitur recensitis, præcipuis Authorum tum Veterum tum Recentiorum Opinibus, tandem restat Sententiam seu potius in re tam atra caligine obvoluta Conjecturam nostram proponere. Circa Variolarum Causas in genere hæc tria Considerationi nostræ occurrent; primo sc. quæ sit earum Causa continens, & quibus in locis minera ejus subsistat atque niduletur, priusquam in actum deducatur. Secundo quæ sit Causa istius Procatarctica quibus nimirum de Causis, semina hujus affectus latentia, modo citius modo tardius in ejus ideam disponuntur. Tertio qui sit modus fiendi, quales nempe alterationes Sanguini per venas refluxo inducantur.

IX. Quod ad primum attinet, opinari fas sit, Causam hujusce morbi continentem esse Acidum connatum in coagulando procax. Acidum autem hic peccare infortunia Variolas à tergo sequentia fidem faciunt, cujus-

VIII. Having thus in short recited the chief Opinions of Authors, as well Ancient as Modern; it remains, that I offer my Opinion, or rather Conjecture, in a thing wrapt up in so great Darkness. Concerning the Causes of the Small Pox in general, these Three things occur to our Consideration. First, What is its containing Cause, and in what places its Mineral subsists, and nests its self, before it is brought forth into Act. Secondly, What is its Procatartick, or outwardly moving Cause, viz. From what Causes the latent Seeds of this affection are disposed into act, sometimes sooner, sometimes later. Thirdly, What is the manner of its Production, viz. What alterations the Blood suffers, circulating through the Veins.

IX. As to the first, we may suppose the continent Cause of this Disease to be a connate Acid, apt to coagulate That an Acid is here in the fault, the Misfortunes following the Small Pox demonstrate, such as spreading Ulcers,

cujusmodi sunt ulcera late serpentina, ossium caries, & foveæ illæ quibus facies nimis sæpe sulcatur, & plurima id genus alia, quibus Medicorum monumenta plena sunt; huic Opinioni Fra. de le boe Sylvius facem accendit, his verbis (p. mihi 619.) *Arbitrati sumus vitium Variolas producens consistere in Acido.*

X. Hac radice paucis acta, originalem hujus acidi scatebram, & propriam commorationis fedem, jam proxime detegere conabimur. Si quid nostra mediocritas judicando valet, acidum hoc connatum esse, vim coagulandi summam obtinere, ac in ventriculo hospitari, autumamus. Succum Acidum juxta Naturæ legem in stomacho nidulari, & sine ejus axilio recte Chilificationis munus, ut par est, præstare non posse, Testimoniis gravissimis Medicinæ lumina palam faciunt. Nec quis hoc facile inficias ibit, qui fætus animalium, solo lacte nutritorum, cultro anatomico exposuit.

Vel

cers, rottenness of the Bones, and the Pits, with which the Face is too often furrowed, and many such like, of which the Books of Physitians are full. To this Opinion Fran. Sylvius de la Boe hath given light, (by saying, in page 619. of his Works) I think the fault, producing the Small Pox, consists in an Acid.

X. This Foundation being briefly laid, I shall in the next place endeavour to discover the original Source, and proper Residence of this Acid. And if my weak Judgment may be admitted to decide this matter, I conceive this Acid is con-nate, has a great Coagulating Power, and doth lodge in the Stomach: And that there is an Acid Juice naturally in the Stomach, and that the business of Chylification cannot be done as it ought without its help, the lights of Physick make appear by weighty Testimonies. Neither will any one easily deny this, who hath dissected the Fetus of Animals, nourished only with Milk: And it appears manifestly, even to the meanest of the People,

Vel fæci enim plebis manifeste liquet, vitulorum stomachos Acidi coaguli ditissimos esse, quo sæpius ad lac Coagulandum, caseosque inde conficiendos utuntur Ruricolæ. Nec tantum vituli, sed & plurima alia Animalia reperiuntur, quæ simili gaudent Coagulo, ex quorum numero sunt Fœtus Humani, quod etiam (ex observatione Clarissimi Harvei in Exercit. p. 55. & 57. de Generatione Animalium) sensibus patet. Cum lac & Sanguis ex eisdem constent Principiis, licet consistentia aliquantum differant, ipsissimis tamen mutationibus, quibus lac Sanguis est obnoxius. Quare nequaquam à ratione alienum nobis videtur, cum nostro Willisio affirmare, cruorem in Variolis coagulari, & nullus dubito, quin si quispiam ferio atque ad amissim perfitaverit encheirisin, qua lacti coagulatio inducitur, atque quibus modis inhibetur aut tollitur, habiturus sit methodum medendi magis rationalem

that the stomachs of Calves abound with an Acid Coagulum, which the Country People often use to turn their Milk, and thence make Cheese of it. And there are not only Calves, but many other Animals found, who have the like Coagulum; amongst which are the Humane Foetus, which also appears (from the observation of the famous Harvey, in the 55th and 57th Exercitation of the Generation of Animals) even to the Senses. Now whereas Milk and Blood consists of the same Principles, altho' they somewhat differ in Consistence; yet Blood is obnoxious to the same Changes as Milk. Wherefore it seems to me not at all unreasonable to affirm, with our Country-man Willis, that the Blood is coagulated in the Small Pox. And I doubt not, but if any one will seriously and exactly consider the managery, whereby Milk is coagulated, and by what means its Coagulation is hindered, or taken away, he will have a more rational and successful method of curing the Small Pox than

tionalem fælicioſioremque, quam quivis adhuc propalaverit. Hanc igitur operam in commatis inferioribus, calamo fuſiori pro tenuitate noſtra explicare aggrediemur.

XI. Cauſæ procataſtæ & Occaſiones evidentes, quæ Acidum hoc conſopitum, aliisque corporaſculis prius obvolutum, irritandi & in actum deducendi anſam ſæpenumero præbent, ſunt alterationes quævis violentæ, quæ vel Acidum in corpore exagitant vel efferatos Sanguini & humoribus inquilinis motus accerſunt; in hunc cenſum præcipue veniunt aer, immodica vini ingurgitatio, nimius Corporis motus, & animi pathemata. Quoad primum ſi aer vel particulis Acidis pleniffime ſit refertus & inquinatus, vel radiis Solis nimium exagitetur, hinc non poteſt fieri quin acetofa ſemina in aeris ſinu deliteſcentia, inter ſpirandum per cruorem diffundantur, & circulationis ope congeneribus, Acidis in ſtomacho alibique hoſpitantibus,

has been hitherto published. I shall therefore undertake to explain this matter more largely in the following Sections.

XI. The procatarctick Causes, and evident Occasions, which often irritate this Acid, and bring it into act, which was before laid asleep, and wrap'd up in other Particles, are some violent alterations, which either exagitate the Acid in the Body, or raise violent motions in the Blood, and Humours within: Of this sort are the Air, immoderate drinking of Wine, too much motion of the Body, and the passions of the Mind. As to the first, If the Air be either fill'd and infected with Acid Particles, or too much exagitated by the Beams of the Sun; hence it cannot be but the sowre Seeds lying hid in the Pores of the Air, are by breathing diffused through the Blood, and by the means of the Circulation assimilated to the like Acids lodging in the stomach, and other places; whence this Effect is sometimes popular, and

B 5

invades

tantibus, assimilentur, unde hic affectus interdum est epidemicus, ac per integros simul vicos & urbes grassatur ut vix unus nisi prius hoc morbo laboravit, ejus tyrannidem effugiat.

XII. Ab Immodica vini ingurgitatione hic morbus interdum excitatur, hujus enim Spiritibus materies Acida jamdudum in stomacho confopita impetuose commovetur, & commotione continuata, per regiam viam Sanguini convehitur. Hinc quidam in Variolas inciderunt, licet nemo tota illa Regione ægrotaverit, atque ab Exercitiis vehementioribus Idea hujus morbi quandoque exuscitatur: Nam hisce Acidæ Portiunculæ ad coagulandum aptissimæ incitantur, quâ incitatione, Corpuscula motus expertiâ, commoventur, & in actum deducuntur. Nec prætereunda sunt animi pathemata, quæ, suum quoque symbolum ad malum commune conferunt, cujusmodi sunt Terror, Metus, aut quæcunque aliæ graviores
Animi

invades at once whole Villages and Cities ; and scarce any one, but he that has had it before, escapes its Tyranny.

XII. This Disease is sometimes excited by the inordinate drinking of Wine ; for by its Spirits the Acid Matter, which for a long time lay asleep in the Stomach, is impetuously moved, and by continual motion is carried by the High Way into the Blood. Hence some fall sick of the Small Pox, tho' no one has had it in the whole Country. The Idea of this Disease is also sometimes awakened by vehement Exercises : For by these the Acid Particles, apt to coagulate, are stirr'd up ; by which Incitation the Corpuscles, unapt for motion, are moved, and brought into act. Neither are the Passions of the Mind to be pass'd by, which contribute also to the common Evil ; of which sort are Terror, Fear, or any other great Disturbances of the Mind ; because by these the Animal Spirits are hindered from performing

Animi Perturbationes, quippe his Spiritus Animales, à solitis functionum suarum muniis obeundis, inhi-bentur, cujus ratione cruor, Elementis Activis orbatus, à debita Crasi & Constitutione deflectit, unde Particulæ Acidæ variæ, à Spirituosis reliquisque prius subjugatæ, sui juris jam factæ, hujus Morbi typum producunt.

XIII. Causa Continente & Pro-catarctica (quantum nos Variolarum Causas Conjectura assequi valemus) jam depicta, ad modum agendi nunc Acedimus, quibus sc. motibus & purpurei torrentis alteratione, Idea hujus morbi exuscitetur. Nempe Acidum hoc in coagulando procacissimum, in debita Naturæ minera nidulatur, ab aliis portionibus crassioribus, à motu abhorrentibus, illaqueatur, & muneri Concoctionis quadantenus opitulatur, donec à Causis modo citatis, hæc acetositas laceffitur, laceffita à Particulis quibus sociali jugo prius implicabatur, se

forming their wonted Offices; upon which account the Blood being deprived of its active Elements, is changed from its due Crasis and Constitution; from whence the various Acid Particles before subjugated by the Spirituous, and others, being now at liberty, produce the Figure of this Disease.

XIII. The Continent and Procatartick Cause being describ'd (as far as I can by Conjecture reach the Causes of the Small Pox) I come now to the manner of its Acting, viz. by what Motions and Alterations of the Purple Stream, the Idea of this Disease is stirr'd up. And verily this Acid, most apt to coagulate, resting it self in its proper Mine of Nature, is intangled by other grosser Particles, unapt for motion, and does some way help the office of Concoction, until this Acidity is stirr'd up by the foresaid Causes; and being irritated, it endeavours in the tumult to disintangle it self from the Particles
with

se extricare mota seditione enititur. Unde ægretudines plus minus immanes, pro Acidi indole, necessario excitantur. Hac seditione continuata fieri non potest, quin Corpuscula spissiora jugi exagitatione subtiliora reddantur, & ab invicem dissocientur. Hoc ritu reserata mixti compage, Acida Corpuscula in ejus sinu delitescunt, qua data via, velut carcere effracto, exiliunt, dein effrænata luxuriant, ac Tragedias, in subjecto ubi diversantur, varias inducunt. Quædam tunicæ nervæ ventriculi pertinacius adhærescunt, hinc diathesis emetica, non facile medicanda, inducitur, licet nulla vitiosa humorum saburra ventriculus oneretur; quædam per Pylorum à Fibris Stomachi convulsive irritatis ejiciuntur, exinde spasmo duodeno ejusque ductibus communicato, pancreaticis succis sibi ipsis parum dissimilibus confunduntur. Junctis ad hunc modum viribus omnes humores, ab
iis

with which it was before intangled From whence Sicknesſes are neceſſarily excited more or leſs cruel, according to the diſpoſition of the Acid. This diſcord being continued, it cannot be but the groſſer Particles are ſubtilized by continual Agitation, and ſeparated from one another. The Contexture of the mixt being thus unlock'd, the Acid Corpuſcles, that lay hid therein, ruſh out every way, as from a Priſon; then, being unbri-dled, they exceed, and act divers Tragedies in the ſubject where they lodge. Some adhere faſt to the Nervous Coat of the Stomach; hence a diſpoſition to Vomit is induced, not eaſily to be cured, altho' the Stomach be not burthened with any load of vicious Humours: Some are caſt out through the Pylorus, by the convulſion of the Fibers of the Stomach; then the Convulſion being communicated to the Duodenum, and its ducts, they are confounded with the ſimilar Pan-creatick Juices. After this manner
joyning

iis alienos, in pancreate & partibus proximè adjacentibus stabulantes, adoriuntur. Unde orgasmi quam maximi, quorum ratione dolores acutissimi in regione lumborum fuscitantur.

XIV. Quædam operibus jam nunc assignatis non occupata tenentur, mediantibus autem venarum Ostiolis in Stomachum, & Lactearum in Fistulam intestinale, dehiscantibus, in Massam Sanguineam protruduntur; hæc ut primum per cruorem diffusa, ejus statum perturbant, atque coagulationem concreti Lactis adinstar ab infuso Acido eidem conciliant, qua de causa minus prompte in vasis Sanguis circulatur; inde Sanguinis motum restaurandi gratia, Febris ut accedat perquam necessaria est; quoniam mediante hac Natura totis viribus quibus pollet, Portiunculas concretas è gremio suo excutere molitur, hinc Symptomata summe varia excitantur, prout in has vel illas partes motu agitatae
im-

joyning forces, they set upon all the Humors different from them in the Pancreas, and parts adjacent: Whence arise very great Commotions, by means whereof extream Pains are excited in the Region of the Loyns.

XIV. Some Particles not occupied in the business, but now assigned, are detained; but by means of the little Mouths, of the Veins opening into the Stomach, and of the Lacteals into the Guts, are thrust forth into the Mass of Blood; these, as soon as they are diffused, though the Blood disturb its Constitution, and coagulate it, as Milk is curdled by an infus'd Acid; for which cause the Blood does not so readily circulate in the Vessels: And thence a Fever is very necessary, to restore the motion of the Blood; for by this means Nature, with all the strength she has, endeavours to expel the concreted Particles: Hence many various Symptoms are excited, as they are agitated by motion, and driven into these or the other parts. Some Portions

impelluntur. Quædam Portiones
 cruoris congelatæ interius in Cordis
 sinus delatæ illic stagnare aptæ existi-
 unt, hinc Lypothymia, &c. quædam
 exterius in habitum Corporis elimi-
 nantur, inde maculæ Pulicum morsu
 primo æmulæ, quæ continuo Particu-
 larum congelatarum accessu in horas
 accrescunt, donec omnes Particulæ
 congelatæ ex Sanguinis sinu extur-
 bentur, exturbatæ efferatiores fiant
 & Inflammationes producant, quæ
 tandem in Abscessus & Vomica defici-
 unt, unde Febris ultimo Stadio re-
 virescit, & Prælium de novo instau-
 rat. Quædam prosapiæ ejusdem at
 majori subtilitate gaudentes, inter-
 cedente Arteria Corotide, caput
 petunt: ubi Spiritibus suffusæ, in
 partes Membranosas modo has mo-
 do illas retorquentur, donec medi-
 antibus tuberculis, Natura victrice
 in Corporis ambitum amendantur,
 unde capitis dolores, Convulsiones,
 Vigiliæ, plurimaque alia hujus fa-
 rinæ Symptomata, ortum ducunt.

ions of the congealed Blood being carried inward into the Sinus of the Heart, are apt to stagnate there; from whence are Swoonings, &c. Some are thrust out into the habit of the Body; from whence are Spots at first like Flea-bitings, which increase continually by the access of congealed Particles, until all the congealed Particles are thrust out of the Blood; and being thrust out, they become more wild, and produce Inflammations, which at length end in Abscesses and Imposthumes; from whence the Fever in the last stage is renewed, and begins the Battle afresh. Some of the same kind, but being more subtle, attack the Head, by the mediation of the Soporal Artery; where being poured into the Spirits, they are thrown upon the Membranus Parts; sometimes these, sometimes others; until Nature by means of the Pustules being Conqueror, they are sent away into the surface of the Body; whence Pains of the Head, Convulsions, Watchings, and other Symptoms of this kind, take their rise.

XV. Nullam non Corporis partem Symptomata, Variolis super-venientia, subinde occupant, & quoad stadium atque speciem immane quantum à se invicem differunt. Primum enim Morbi insultu ubi primum Humor acetosus, urgente Febri, per totam Corporis Machinam moveri incipit, rigor, horror, oscitatio, pandiculatio exurgunt. Quibus mox succedunt, calor modo Intensus modo Remissior, Ægritudo, Nausea, Vomitus, Syncope, Deliria, motus Convulsivi, & quotquot sub Februm Classe comprehendi solent Symptomata. Præter hæc generalia Phænomena quibus pleræque Febris stipantur, sunt quædam quasi pathognomonia, quæ hunc Affectum à cæteris congeneribus discriminant. Nempe dolor vel terebrans vel grativus, capitis arcem lumborumque regionem occupans, qui fere solus in Febre continua Variolas esse præ foribus denunciat. Præ-

fertim

XV. The Symptoms coming upon the Small Pox presently possess every part of the Body; and as to their Stage and Form, they differ very much from one another; for at the first insult of the Disease, when first the sower Humor, by the violence of the Feaver, begins to be moved through the whole Machin of the Body, coldness, stiffness, horror, gaping, and stretching arise. After which comes heat, sometimes Intense, sometimes Remiss, Sick-ness, Loathing, Vomiting, Swooning, Raving, Convulsive Motions, and whatever Symptoms use to be comprehended under the Class of other Feavers. Besides these general Phanomena, with which most Feavers are accompanied, there are some as it were peculiar Signs, which distinguish this Affection from others of the like kind. As a piercing, or heavy pain, seizing the Head, and Region of the Loyns, which doth almost alone in a continual Feaver declare the Small Pox to be at the door: Especially if the Sick has never had it before, and if

fertim si ægrotans nunquam antea istis correptus fuerit, si quoque in vicinia sint, vel epidemice tunc temporis desæviant. Hunc statim excipiunt Facies rubicunda & tumida, somnolentia, quod de Infantibus sudor profusus, quod de Adultis dictum volo: Anxietas, Torpor insignis, Corporis gravitas, Nausea, Vomituritio, Fluxus alvi, paroxysmi Epilepsiæ persimiles, jactatio inquieta, lachrimæ involuntariæ, punctationis sensus omnes fere Corporis partes infestans, & denique Urina Protei æmula, vix aut ne vix sub eadem specie conspicua, siquidem nunc pallida & tenuis, nunc subturbita & contentis saturata, alias sanorum Urinæ similis, & sic porro.

XVI. Sub primo discretarum ingressu, Febris Intermittentis, cum oscitatione & pandiculatione ingruentis, typum plane induit, dein dolor capitis gravitativus, ut ejus onus diu erectum Corpus vix sustinere queat, lumbago nulla vel admonum,

levis,

it is in the Neighbourhood, or rages epidemically at the same time. This presently follow'd by a red and turgid Face, with Sleepiness in Infants, and profuse Sweating in the Adult; great Anxiety, great Dulness, heaviness of the Body, Loathing, inclination to Vomiting, Looseness of the Stomach, Fits very like the Falling Sickness, unquiet Tossings, involuntary sleeping, a kind of Pricking infesting almost all the parts of the Body: Urine, variable Urine, hardly to be kept under the same form, now pale and thin, now somewhat troubled, and full of gross Contents; otherwhiles like the Urine of those in Health, and on.

XVI. At the first Invasion of the separate Pox, it plainly puts on the form of an Intermitting Fever, with shivering and stretching; then there is a heavy pain of the Head, so that the body can scarce long sustain its weight upright, little or no pain of the Loins, dullness of all the Senses, unaptness to undergo

levis omnium sensuum habetudo, ad pristinos labores obeundos inhabilitas, inappetentia, somnus inquietus, pulsus solito citatior, & die ab Invasione quarto erumpit hæc Variolarum species; nisi ex infausto aliquo accidente, in regimine vel Medicamentis perperam propinatis Crisis interturbetur.

XVII. Quamprimum Maculæ acupuncturis haud absimiles primo se Eruptionis die se produnt, faciem imprimis insidentes, vel etiam collo & pectori, dein in universo Copore ἀπυρεξία Integra ægri discretis laborantes fruuntur, cunctaque malorum Symptomatum agnina, in hoc Stadium minime redintegrandæ, penitus fugantur, ac si nulla valetudine iniuncta excrucitati fuissent, dempto sudore plus solito, & Pustularum indies grandescentium molestia, quæ die, hujus stadii primo, pulicum morsus imitantes, in conspectum veniunt, secundo Paululum seipsas dilatant, & duritiem quandam, examine

undergo former Labours, want of Appetite, unquiet Sleep, and Pulse quicker than ordinary; and on the fourth day from its Invasion, this kind of Pox breaks out, unless the Crisis be disturb'd by some unluckly accident in ordering the Patient, or by Medicines wrongly given.

XVII. As soon as the Spots, not unlike the marks made with the points of Needles, appear, viz. in the first day of Eruption, begin first on the Face, or on the Neck and Breast, and then on the whole Body; those sick of the separate Pox are free from the Fever, and the whole troop of ill Symptoms, not to be renewed in this stage, are wholly chased away; as if they had not been troubled with an ill state of Body, the more than usual Sweat being excepted, and the trouble of the Pustules daily growing greater and greater, they appear the first day of this stage like Flea-bitings; on the second they dilate themselves a little, and get some hardness, resisting the touch when they

C

are

amine per tactum adhibito, renitentem obtinent, tertio circa basin auctæ tuberculis exactissime rotundis donantur, quarto in summitate acuminatæ margine cinguntur rubro, quinto in summam molem evectarum apices albescere incipiunt. Atque in ipsa eruptionis aurora, ab Efflorescentia Morbillofa, Erysipelatosa, & Scarlatina, ex Facili dignoscuntur, hæ enim exanthematum maculæ, figuram quam maxime rotundam, & quandam palpantis digito renitentiam exhibent, quibus duobus Criteriis invicem junctis, haud difficulter ab alio quocunque morbo huic affini dispescuntur.

XVIII. Variolæ interpunctæ (quæ confluentium in omni hujus mali decursu jure merito censenda sunt norma) prima ultimi stadii die, asperitatem quandam judice digito præsertim in facie obtinent, & Febris ex Pustularum maturatione nonnihil accenditur; secundo acumina scabie subflava

are felt; on the third, being increased about the Basis, the Pustules are exactly round; on the fourth, being sharp on the top, they are compassed about with a red Margin; on the fifth, being increased to the full bigness, the tops begin to look white. And in the very morning of their eruption they are very easily distinguished from the Efflorescences of the Measles, Erysipelas, and Scarlet Feaver; for these spots of the Small Pox have a Figure very round, and a certain resistance to the Finger of him that touches them; by which two Criteria, or Signs joyned together, they are easily distinguished from any other Disease a-kin to this.

XVIII. The distinct Pox (which ought to be the Rule of the fluxing in the whole course of this Disease) on the first day of the last stage, begin to feel rough, and the Feaver is a little inkindled from the ripening of the Pustules; on the second, the tops being cover'd with a yellowish scab, begin

subflava larvata subsidere incipiunt, & faciei manuum pedumque intumescencia pedetentim recedit; tertio pure inspissato in scabiem aridam & subflavam undique ipsæ Variolæ commutantur; quarto emorientibus Pustulis, sine ullius mali Symptomatis repullulatione per totum exuvias deponunt, nullasque notas diu adhærentes cuti imprimunt.

XIX. Accidentia cum distinctis communia obtinet & illa Variolarum species, quæ nomine confluentium insignitur, nisi quod Stadia diutius protendantur, & Symptomata atrocius defæviant omnia, Febris, sc. continua & ardens viget; dolor in capite & lumbis horrendus frangens & plane convulsivus urget; nausea & vomitus immanis ventriculum laceffunt, vigiliæ pertinaces, in somno terrores, jactatio inquieta, fluxus alvi efferatiores sæpius decumbentem infestant, densoque aliorum Symptomatum indies succrescentium agmine comitantur:

nunc

to fall, and the swelling of the Face, Hands and Feet, departs by degrees; on the third, the Corruption being thickned, the Pox are every where changed into a dry and yellowish Scab; on the fourth, the Pustules drying, every where fall off, without the return of any ill Symptom, and leave no mark adhering long to the Skin.

XIX. That kind of Pox, which goes by the name of the Fluxing, hath the same accidents in common with the distinct; unless that it extends its Stages longer, and all the Symptoms rage more cruelly, viz. there is a continual and burning Feaver; there is a horrid rending, and even convulsive pain in the Head and Loins, and great Loathing and Vomiting troubles the Stomach, long Watchings and Terrors in Sleep, inquiet Tossings, and more cruel Fluxes of the Belly often trouble the Sick, and they are accompanied with a great troop of other Symptoms daily increasing; and the

nunc quartum diem prævertit, nunc ad quintum sextumve differtur Pustularum eruptio.

XX. Post Pustularum eruptionem Febris uno tenore progreditur, & eodem Symptomatum satellitio, quibus apparatus, plerumque stipatur, pluraque alia de nova Symptomata uti Ptyalismus, Urinæ suppressio, Hæmorrhagiæ profusæ, exanthematum recursus, interstitia Pustulis interjecta, petechiis vel eruptione miliari subinde notata sunt, & figuram ex omni parte Sphæricam non servant, quibus de Causis arduum est, hoc malum à morbillis, Febre Erysipelatosa, Scarlatina, atque ab aliis morbis cognatis, de facie sc. externa discriminare. Hujus vero stadii limites, interdum ad octavum vel nonum usque diem prorogati, varie determinantur.

XXI. Simul ac confluentes exarcescentiæ stadium ineunt, Febris omnisque Symptomatum prius natorum cohors plurimum exarcebatur.

Salivæ

Eruption of the Pustules sometimes comes before the fourth day, sometimes it is deferr'd to the fifth or sixth.

XX. After the Eruption of the Pustules, the Feaver goes on at the same rate, and with the same attendance of Symptoms, with which it is for the most part accompanied; and then there arise many other Symptoms anew, as Spitting, stoppage of Urine, profuse Bleedings, striking in of the Pox, and the interstices between the Pustules are marked with Spots, or Milliar Eruptions, and the Pox do not keep a figure altogether round; from which Causes it is difficult to distinguish this Evil by its outward appearance from the Measles, Erysipelous, and Scarlet Feavers, and other cognate Diseases. The limits of this Stage are variously determin'd, sometimes being put off unto the eighth or ninth day.

XXI. As soon as the fluxing Pox enter into the stage of drying, the Feaver, and the troop of Symptoms arising before, are enraged;

Salivæ crudæ & tenuis rivulus, quæ ante hac pleno amne fluxit, Phlegmate admodum incrassato fere deficit, & strangulatione suffocativa excipitur, nisi Naturæ, vel artis suppetiis adjuvetur, tumor & inflammatio Faciei artuumque Sensim subsident, unde æger cujus oculi præ tumore hætenus clausi eos aperire & videre incipit. Exanthemata pure nullo vel ichoroso repleta scabie nigra vel subfusca obducuntur; nec ante sextum vel septimum declinationis diem desquamantur, non Raro, Ophthalmia, Tussis, Struma, Phthisis, Oedematosa surarum & pedum intumescencia, cum multis aliis id genus accidentibus, atque ad malorum cumulum cicatrices, & foveæ cuti turpiter inustæ, accedunt, quibus textura Faciei delicata, à sequiori Sextu ipsi vitæ sæpe sæpius prælata, enormiter deturpatur.

XXII. Premissis quæ superius de Variolarum differentia, Ætiologia &

the stream of crude and thin Spittle, which before flowed plentifully, (the Phlegm being thickned) is almost stop'd, and is followed by a suffocative strangling, unless the Patient be relieved by the aid of Nature or Art; the Swelling and Inflammation of the Face and Joynts abate; whence the Sick, whose Eyes were hitherto shut up by the Tumor, begins to open them and see. The Pox fill'd with none, or an inchorous Corruption, are covered with a black or brownish Scab; nor do they scale off before the sixth or seventh day of their declination: Oftentimes there happen sore Eyes, Coughs, Swelling of the Throat, Phthisick, Oedematous Swellings of the Legs and Feet, with many other accidents of like kind, and to the many other Evils, foul scars and pits in the Skin, by which the delicate Texture of the Face (often preferr'd to Life by the Female Sex) is enormously deform'd.

XXII. What we have said above, of the difference, *Ætiology*, and *diagnosis*

& Signis diagnosticis dicta sunt, ad fontes Prognosticōrū aperiendos jam proxime patet aditus. Ubi primum motus p. n. Sanguini inducitur, Phænomena quædam apparent, eventum huic morbo secundissimum vaticinantis, quæ sunt hujusmodi. Si Corpus omnis ægritudinis expers, Natura existente robusta, Variolæ invadant, si constitutio aeris sit bona maximusque decumbentium numerus convalescat, si in ætate Infantili vel Puerili, verno vel æstivo tempore contigerint, si cum Symptomatum horrendorum absentia apparatus peragatur; si die quarto ubi egressa sunt exanthemata Febris cum Symptomatibus gravioribus consopiat, si in primis eruptionis diebus maculæ sint distinctæ, rotundæ, copia mediocres, si salivatio copiosa tenuis & facilis ad finem usque cum voce libera & respiratione non molesta protendatur, si exactis quinque Efflorescentiæ diebus, Pustulæ sint interpunctæ, molles, fastigitatae, solum.

nostick Signs of the Small Pox being
 premis'd, it lies next in our way to
 discover the Prognosticks. When first
 a Preternatural Motion is brought
 into the Blood, certain Phenomena
 appear, foretelling a happy event to the
 Disease; which are such as these:
 If the Pox invade a Body free
 from all Sickness, Nature being
 strong; if the Constitution of the
 Air be good, and the greatest number
 of the Sick recover, if it happens in
 Childhood or Youth, in the Spring or
 Summer time, if the appearance be
 without any horrible Symptom, if in
 the first days of eruption, the spots are
 distinct, round, not very many, if a
 plentiful, thin, and easie Spitting con-
 tinue to the end, with a free Voice,
 and easie Breathing, if after the five
 days of breaking forth the Pustules
 are distinct, soft, and copped; if
 they only beset the out-parts of the
 Body, and none of the inwards; if
 their brims are of a brisk red, and en-
 large their basis day by day; if the
 Fever,

solummodo Microcosmi littora, nullasque partes internas obsideant, si margines vegete rubeant, atque bases suas de die in diem amplient, si Febris, quæ sub ultimi stadii initium recrudescere solet, mitis sit bonique moris, & denique si Natura decimo tertio morbi die, omni ærumnoso accidente vacua, eliminato penitus hoste, victrix triumphet.

XXIII. Signa suspecta & mali omnis habentur, quæ sequuntur, si Corpus cacochymum, acidisque succis onustum sit, si plures ægrotantis antecessores in Variolas incidentes fatum acceleraverunt, si aer Acidis particulis sit gravidus, unde constitutio Variolosa, pestem feram ipse pro numero sc. ægrotorum pernicie exæquans, aliquando passim grassatur, si homines in flore ætatis vel natu grandiores hoc malo corripiantur, si patiens sit meticulosus, melancholicus, aut misere amatorius, aut quacunque alia animi perturbatione graviori, quæ spiritus deprimendo acetosa

Feaver, which is wont to increase again at the beginning of the last stage, be mild and moderate; lastly, if Nature on the thirteenth day of the Disease triumphs as a Conqueror, being free from all troublesome accidents, and has utterly thrust the Enemy out of doors.

XXIII. The Signs following are esteemed Suspicious, and do presage no good Event; if the Body be full of ill Humors, and loaded with Acid Juices; if many of the Patient's Ancestors have died of the Small Pox, if the Air be full of Acid Particles, from whence a Small-Pocky Constitution rages up and down, almost as destructive for the number of the Sick as the Plague it self; if Men in the Flower of Age, or older, are taken with this Disease, if the Patient be Fearful, Melancholly, deeply in Love, or under any other great Perturbation of Mind, which by depressing the Spirits, increase the sower Corpustles, that lie lurking in the Humors; if
the

acetosa Corpuscula, in humorum gremio latitantia, adaugeat, exagitetur. Si Sanguinem habeat vehementiori motu, generosiori potu, vel calidiori regimine nimis exaltatum, & in efferatos motus adauctum, si Corpus valde obesum, phthificum, lue venerea, aut aliquo alio morboſo affectu inquinatum Variolæ aggreſſantur: exitum non niſi dubium expectare licebit. Nec minori periculo vacant, quando à primo morbi inſultu, febris ingens, ægritudo univerſalis, naſea moleſta, vomitiones enormes, jactatio inquieta, deliquia animi ſæpe recurrentia, vigilie pertinaces, dolores capitis & dorſi acutiſſimi, fabulatio abſurda, hæmorrhagiæ efferæ, dejectiones frequentes exurgunt, ſi ante vel poſt quartum diem appareant, maculæ variolarum prænunciæ, ſi Puſtulis plene exortis luſtus febrilis & cætera Symptomata mali moris, Apparatum comitantia, non remittant, ſi Eryſipelatis, Morbillorum vel Febris Scarlatinæ ritu

the Patient's Blood be too much ex-
 alted by some violent motion, large
 drinking, or by a too hot manage-
 ment, and so put into a rage; if the
 Small Pox seize a Body that is ve-
 ry Fat, Phthifical, infected with the
 French Pox, or any other Morbous
 Affection, we may expect but a doubt-
 ful issue. Neither is there less dan-
 ger, when from the first on-set of the
 Disease, there arises a great Fever,
 an universal Sickness, a troublesome
 Loathing, unmeasurable Vomitings,
 unquiet Tossings, frequent Faintings
 long Watchings, sharp Pains of the
 Head and Back, absurd Talk, fierce
 Bleedings, or frequent Stools; if
 the spots, the harbingers of the Small
 Pox, appear before or after the fourth
 day, if the Pustules being fully risen, the
 Febril Heaviness, and other ill-natur'd
 Symptoms accompanying the appear-
 ance do not remit; if they appear
 after the manner of the Erysipelas,
 Measles, or scarlet Fever; if a Spit-
 ting arises as soon as the Pustules
 break

se prodant, si quamprimum Pustulæ Efflorescunt, Ptyalismus oritur, si post eruptionem Variolæ sint confluentes, cohærentes, male figuratæ, depressæ, sessiles, duræ, strangulatæ, nigræ, lividæ, seu maculis purpureis interstinctæ, Si respiratio brevis & laboriosa cum deglutitione molesta pulsu debili & citato urgeat.

XXIV. Ubi Tussis importuna & sterilis, Urina cruenta, Micturitio frequens & molesta, Alvi Fluxus, aut Narium hæmorrhagiæ Ægrotanti superveniunt, ubi totum Eruptionis Stadium ante octavum vel nonum diem non consummatur, nihil inde boni sperare licet. Ubi Ptyalismus, quæ tenuis & facile ad primum novissimi stadii diem rejecta fuit, subito sponte sua sistitur, nisi profluvio Urinæ vel extremorum intumescencia compensetur sputi sufflaminatio conclamatum est. Ubi Febris, quæ sub apparatus ingressum exorta fuit, ad exarescentiæ stadium usque unum tenorem servavit, in de-

break forth ; if after the eruption, the Pox flux, cohere, are of an ill figure, depressed, flat, hard, choaked, black, livid, or have any purple spots between them ; and if the Patient be troubled with short and painful Breathing, difficult Swallowing, or a weak and quick Pulse.

XXIV. Where an urgent and dry Cough, bloody Urine, often and troublesome making of Water, a Flux of the Belly, or Bleeding of the Nose, befall the Sick ; where the whole stage of Eruption is not finished before the eighth or ninth day, there is no good to be hoped for : Where the matter of the Spitting, which was ejected thin and easie unto the first day of the last Stage, suddenly stops of it self, unless the stopping of the Spittle be compensated by a flowing of the Urine, or swelling of the extream parts, the case is desperate. Where the Feaver, which arose at the beginning of the appearance, stands at the same stay, until the stage of drying, or is increased in the

declinatione exacebatur, si Deliria, Vigilæ, Spasmi, subsultus Tendinum, strangulatio Suffocativa, Deglutitio interpellata, vibratio articularum debilis, Pustulæ distinctæ petechiis aut eruptione miliari interjectæ, se in conspectum dant, eventus periculosæ aleæ plenus indicatur. Ubi crustularum casus ad diem sextum vel amplius protenditur, si exanthematis defluis *ἀντορροία*, Calor hecticus vel Tussis superint, Phthisin, Affectus Strumosos, Ossis Cariem, aut aliquam aliam labem Morbosam illico suppullulaturam confidere par est, nisi Medicamentis tempestive propinatis exterminentur.

XXV. His ita præmissis, nonnulla de methodo prophylactica prælibare priusquam therapeuticam aggredior, summo usui fore existimavi quibus nimirum modis Variolæ passim defævientes a nondum Corruptis evitentur. Ut quivis hunc scopum attingat, velis remisque con-

the declination; if Ravings, Watchings, Convulsions, leaping of the Tendons, Choaking, Swallowing hinder'd, the Pulses beat weak, the Pustules appear distinct, with spots or miliar eruptions between them, the event is judged full of danger: And also where the falling of the Scabs is prolong'd to the sixth day or farther. If after the Pox are gone there remain want of Appetite, a hectick Heat, or a Cough, we may well believe that a Phthisick, Scrophulous Affection, Rottenness of the Bones, or some other Disease will thence spring up a-new, unless they are remedied by Medicines timely given.

XXV. These things premis'd, I think it very useful to treat a little of the Preservative method, before I fall upon the Curative, viz. To shew by what means the Small Pox, raging up and down, may be avoided by those that are not yet seized with them. That one may attain this end, he must endeavour by all means that the Blood
and

tendendum est, ne motus anomali Spiritibus & Sanguini inferantur, & ut omnes Acidi fomites, sive in Aëre sive in Corpore hospitantes rescindantur. Si ventriculus vitiosa colluvie onustus sit, adsitque nausea vel ad vomitum proclivitas, per superiora stomachus leniori medicamento everrendus est; propinanda etiam purgatio mitior, mercurio dulci maritata, ubi eam exigit artificiosa indicatio; & peracta sive emetici sive cathartici operatione, sub vespere paregoricum continuo ut exhibeatur, author sum. Ubi contingit Sanguinem exuberare vel ex accidente plus justo attenuari, phlebotomia fœliciter institui posset: Ubi ex Aëre miasma Variolosum epidemice grassari incepit, illud migrando in alium locum devitetur: Exercitia solito citiora; Liquoris Spirituosioris deglutitio, Ira, Metus, Terror, cane pejus & angue fugienda sunt. Ubi vero aliquis Corpus, nulla faburra vitiosa depravatum,

con-

and Spirits be not put into disorderly motions, and that all nourishers of Acid, whether lodging in the Air or in the Body, be destroyed. If the Stomach be loaded with any vicious Filth, and there be Loathing, or an Inclination to Vomit; the Stomach is to be cleansed by some gentle Vomitive; also a mild Purge may be given, joyned with *Mercurius Dulcis*, where an artificial Indication requires it; and the operation of the Vomit or Purge being over, I always prescribe an anodine Medicine to be given in the evening. Where Blood happens to abound, or by some accident to be too much attenuated, the opening of a Vein may be very well prescrib'd: Where the Small Pockey-Pollution, by reason of the Air, begins to spread epidemically, it may be avoided by removing to another place: Immoderate Exercises, the drinking of very Spirituous Liquors, Anger, Fear, Terror, are to be avoided as Poyson. Where one has a Body depraved with

consecutus est, cibis boni succi & coctu facilibus vescatur, embammata præparanda sunt ex Iujula, succo citri, limonum, aliisque acidis fixis, quibus acidulum stomachi incola, veluti vinculis injectis in assento naturæ foco incarceretur. Pro situ restinguenda, ptisanam, cerevisiam tenuem, julepum ex decocto hordei, succo Citri vel spiritu vitrioli instillato acidulatum, potet. Vitanda sunt aromata, fructus horarii, vinum, cerevisia fortis, & quæcunque alia quæ inebriare solent. Absorbentia uti margarita, oculi cancorum, corralium, atque myrrha cum plurimis aliis hic summæ utilitatis sunt; nec prætereunda est animi tranquillitas animositate corroborata, quæ ad insultum hujus mali depellendum cæterorum præsidiorum facile caput est.

XXVI. Cum duplex sit hujus morbi species, nempe distincta & confluens, quæ in decursu juxta varia ejus stadia, & diversa Symptomata longe lateque

no vicious load, let him use Meats of good Juice, and easie of digestion; Sauces are to be made of Wood-Sorrel, Juice of Citrons, Limons, and other fixt Acids; by which the Acid, lodging in the Stomach, is as it were bound and imprison'd in the usual Focus of Nature. To quench Thirst, let him drink Barley-Broth, Small Beer, Juleps of the Decoction of Barley, sharpened with Juice of Limons, or Spirit of Vitriol dropt in it. Shun Spices, Summer Fruits, Wine, Strong Beer, and all things that are wont to inebriate. But Absorbents, as Pearls, Crabs Eyes, Corral and Myrrh, and divers others, are here very profitable. Neither must Tranquility of the Mind, strengthened with Courage, be omitted, which is the chief Preservative against the invasion of this Disease.

XXVI. Whereas there is a two-fold Species of this Disease, viz. the distinct and fluxing Pox, which differ very much in their Course, according to

lateque differunt, indicationes quoque therapeuticæ diversimodam mendi rationem suggerunt.

XXVII. Insultu distinctæ speciei factō, Therapeia exigit, ut Sanguis cū a nimio torpore, tum a nimia incalescentia, vindicetur, huic enim fere idem accidit, quod Lactarii in caseo apprime conficiendo animadvertunt; sc. Dum calor lacti, temperiem ejus recens emulcti, non multum exuperans conciliatur, commoda secretio ab infuso coagulo inducitur. Sin eidem frigefacto vel ebullienti fermentum injiceretur, concretio aut vix omnino aut pressime succederet. Itaque cum Sanguis pigre admodum in vasis circulatur, stimulum adhibere par est, ubi vero plus nimis ebullit (quod sæpius accidit) & supra debitum tenorem evehitur, frænum ei æstuanti injici oportet. Ut hæc duo contraria evitentur, regimen naturalis partium carnosarum temperiei æmulum (in quo totius negotii

to the various Stages, and divers Symptoms, the curative Indications suggest a different method of Cure.

XXVII. The distinct kind having seiz'd a Person, it is requisite to the Cure, that the Blood be defended as well from too much Coldness, as from too much Heat; for here happens almost the same which Dairymen observe in right making of Cheese, viz. When the Milk is made not much hotter than it come from the Cow, the separation by the Rennet is well made; but if the Rennet be put into it when it is either cold, or very hot, it is either not turn'd at all, or not as it should be: So when the Blood circulates but slowly in the Veins, it ought to be stirr'd up. But where there is too great an Ebullition (which oftner happens) and the Blood runs faster than it should, its heat ought to be restrained. That these two Contraries may be avoided, a Government much like the natural Temperature of the Carnous Part (on which

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gotii cardo veritur) imperari æquum est. Ut hunc scopum attingamus, bona sit victus lex, quæ neque frigoris neque caloris excessum obtinet. Jusculis avenaceis, hordeaceis, panatella, & pomo cocto interdum vescatur æger. Potus instituitur ex liquore possetico vel cerevisia tenuiori pane tosto leviter tepēfacta, & succo citri acidulatur. Aër sit ex calido temperatus, stragulis solito gravioribus nequaquam cooperiatur, requies tum Corporis tum Animi summo adstantium studio procuretur.

XXVIII. Apparatus pharmaceuticus, ubi nulla mali moris Symptomata, ex infortunio quovis exuscitata, urgent, nullus omnino exigitur, sed res in totum Naturæ, interpuctuarum Medico Felicissimo, committere peropus est: ubi autem cruor motu tardissimo per vasa defertur, cardiaca sale alchalisato prædita subinde propinanda sunt, donec obstetricantibus his tota ejus Massa motu

Hinge the whole business turns) ought to be prescribed. That we may attain this end, let there be a good order of Diet, which neither exceeds in cold or heat. Let the Sick eat Water-gruel, Barley-broth, Panada, and sometimes a Codled Apple. Let him drink Posset-drink, or small Beer warm'd a little, with a Toast, sharpened with Juice of Limons. Let the Air be temperately warm, and let not the Sick be covered with more Cloaths than ordinarily, and let the Attendants do all they can to give him rest of Body and Mind.

XXVIII. Where there are no ill Symptoms arising from any Misfortune, Medicinal Prescriptions are not at all required, but it is very necessary to commit this business of the separate Small Pox wholly to Nature, the most happy Physician; but where the Blood circulates but slowly through the Veins, we must presently give Cordials, prepared with an alkalous Salt, until by the help of these Medicines its whole Mass is car-

motu citatiori circumvehatur: Inter illa quæ huc maxime faciunt Medicamina; sunt Bezoar: Orient: Margarita, Os de Corde Cervi, Oculi Caucrorum, Pulv. Gasconicus, Crocus, &c. sin Sanguinis liquor motum immodicum conceperit, pharmacis paregoricis dictis quarto præsertim morbi die sufflaminare eum satagat Medicus: ex quorum classe est Laudanum, Syr. Diacodii, &c. quæ in dosi debita juxta rerum exigentias cum aquis appropriatis exhibita, cæteris prælucent; quorum usui (ni fallor) non minus Experientia quam Ratio suffragatur.

XXIX. Quam primum maculæ sparsim se produnt, hæud infirma Cautione opus est, ne Crisis incæpta nimia Medicamentorum ingurgitatione, vel Regimine plus justo calidiori, interturbetur, sed Naturæ, separationem molienti, totum negotium committere par est, dummodo Incalescentia non omnino torpeat.

ried with a swifter motion: Among those Medicines which here are the most beneficial, are Oriental Bezoars, Pearls, the Bones of a Stags Heart, Crabs Eyes, Gascoin Powder, Saffron, &c. But if the Blood hath been put into an immoderate motion, let the Physitian endeavour to stop it by gentle Medicines, called Paregoricks, or Anodynes, especially on the fourth day; of which sort is Landanum, Syr. of Diacodium, &c. which given in a due dose, with specifical Waters, according to the Exigencies of things: The use of which (if I am not mistaken) Experience as well as Reason votes for.

XXIX. As soon as the spots appear here and there, there is need of no small Caution, lest the begun Crisis be disturb'd by taking of too many Medicines, or by a too hot Government; but it is sufficient to commit the whole business to Nature, which endeavours a separation, provided the Incallescence be not altogether languid;

torpeat. Adinster lactis quod quo moderatiori calore præditum est, tanto facilius ab affuso Acido in partes secedet, separatione crassæ & congelatæ materiæ à tenui absolvetur. Diætam quod spectat & reliquum ægri regimen, in priori stadio imperatum, in hoc factum tectum præstare admodum utile erit; & observata iusta rerum non naturalium norma, sine ope Medicæ eruptionis stadium exitum desideratum inveniet.

. XXX. Circa primum exarescentiæ diem, ubi pus concoqui incipit, danda erit opera ut dolor Pustularum inflammatorius Anodynis consopiat, quorum ope non minus inquieta juvenum jactatio, quam Infantium ejulatus compescitur. Frigoris susceptio studiose præcavenda est, ne portiones congelatæ, ab humoris gremio in massam carneam secretæ, & penitus eliminatæ, per venas ex lege circulationis in Sanguinem repercutiantur. Victus hoc durante

like Milk, which by how much it hath the more moderate heat, by so much the more easie it will separate by the affusion of the Acid, and the separation of the thick and congealed matter will be freed from the thin. As for Diet, and the other Government of the Sick, that which was ordered in the former stage, will be very profitable to be observed exactly in this; and a just Rule of the non-natural things being kept to, the Stage of Eruption will have the desired end without the Physicians help.

XXX. About the first day of the drying, when the Corruption begins to be concocted, we must endeavour that the inflammatory pain of the Pustules may be eased by Anodynes, whereby the unquiet Tossings of Youths is restrained, no less than the Crying of Infants. And we must studiously beware, that the Patient doth not take Cold, lest the congealed Particles, separated from the Blood, and quite thrust out into the fleshy parts, be again drove back by the Veins into

durante stadio instituatur tenuis, nimirum ex jusculis carniū exper-
tibus, frustulum panis tosti cui bu-
tyrum illitum, subinde deglutiat
æger, quorum ope Æsophagi Fibræ
aridæ atque asperæ emolliantur, &
latera ejus coarctata dilatentur,
hinc alimentorum & Aëris deglu-
titio facilius perficiatur. Quoad
cæterum regimen, in prioribus sta-
diis institutum, in hoc inviolatum
observare licebit. Ubi primum Pu-
stulæ, pære incrassato Scabie sub-
flava obduci incipiunt, pruritus
æruninosus ægri Faciem sæpenu-
mero undique obsidet, adeo ut va-
riolosus a crustulis immaturis effo-
diendis manus vix abstineat. Hu-
jus molestis Symptomatis, a rigi-
ditate orti, mitigandi gratia, totam
Faciem oleo Amygd. dulc. vel jus-
culo vervecino subpingui stimu-
lante pruritu, illinere perquam ne-
cesse est. Præterlapso morbi die
decimo tertio e lecto surgat, & ex-
anthematum scabie per totum de-
posita,

the Blood by the Law of Circulation. While this stage lasts, there ought to be a thin Diet, viz. of Broth, without Flesh, and let the Patient sometimes swallow a bit of Toast and Butter; by the means of which the dry and rough Fibers of the *Æsophagus* will be mollified, and its streightned sides dilated; hence the swallowing of Food, and the breathing in of Air will be perform'd the easier. As to the rest; the Government prescrib'd in the former stages may be kept inviolably in this. When first (the Corruption being thickned) the Pustules begin to be covered with a yellowish Scab, there is often a troublesome Itching all about the Face of the Sick, so that he can hardly hold his hands from scratching off the immature Scabs. To mitigate this troublesome Symptom, arising from the stiffness of the Scabs, it is very necessary to anoint the whole Face with Oyl of sweet Almonds, or pretty fat Mutton-Broth, if the Itching be urgent. The thirteenth day of the Disease being over, let the Person rise from his Bed,

posita, Fæces & morbi quisquiliæ, in Fistulis interioribus relictae, ex alvo per Catharsin bis terve reiteratam everrantur, a quibus de-tentis Affectus gravissimi sæpe sapius ansam arripiunt, ac asterisco notandum est, quod ante Purgationis exhibitionem Carnes Animalium, Piscium, Ova nequaquam concedenda sunt.

XXXI. Hactenus de speciei distinctæ decumbenti eventum lætum spondentis curatione, deinceps indicationis therapeuticæ confluenti, nunquam periculo vacuæ, exantlandæ sunt. Sub exanthematum indistinctorum exortu, indicatio generica in hunc scopum dirigitur, nempe ut Acidum efferum ex propria sede protrusum cicuretur & subigatur, quo enim citius Acidi vis infringitur, eo minor Pustularum acies in stadiis mox nascituris confluit, & quo minus eæ cohærent, tanto major salutis spes affulget, quia totius curationis cardo in Pustularum

and the Scabs being wholly off, let the Feces or Dregs of the Disease, left in the inward Pipes, be carried off by a Purge two or three times repeated; from which Feces, being retained, grievous Diseases very often take their rise. And it is to be well noted, that the Flesh of Animals, Fish and Eggs; are not at all to be indulged before the Sick is Purged.

XXXI. Hitherto of the Cure of the distinct kind of Pox, which promis'd a joyful Event to the Sick; in the next place the Curative Indications in the fluxing Pox, that are never without danger, are to be produced. At the breaking forth of the indistinct or fluxing Pox, the general Indication is to be directed to this Scope, That the fierce Acid, thrust out of its proper Seat, may be tamed and subjected; for by how much the sooner the force of the Acid is broken, by so much the Pustules flow the less together in the following Stages; and by how much the less they cohere, by so much there is the

more

stularum paucitate consistit. Medico igitur hunc morbum ex arte curaturo non leve incumbit pensum. Hujus metæ attingendæ gratia, omnis cura impendenda est, ut omnes Acidi fomites in Corpore stabulantes (qua bene fieri possit) rescindantur, rescissaque coluvie acetosæ mineræ, ut motus naturalis tum Sanguini tum Spiritibus inducatur, Ut voti compos sit, ubi Viscera & Primæ viæ Saburra materiæ Acido-crudæ scatens, præcipue si nausea vel Vomitus ægrum laceffat, leviori emetico everrendæ sunt. In quem usum liquor Posseticus cum foliis Cardui Benedicti incoctis, Oxymel Scillit. Sal Vitrioli, optime audiunt, & peracta Medicamenti operatione, Opiatum propinare ad orgasmum, a vomitione Sanguini inductum, compescendum non parum prodest.

XXXII. Ubi Morbus ex vehementi motu, vel ex Liquoris Spirituosi potu immoderatiore ortum traxit,

more hope of Health ; because the Hinge of the Cure turns on the fewness of the Pustules : Therefore the Physitian, that would cure this Disease according to Art, has no light Task. For the attaining of this end, all care must be taken, that all Nourishers of the Acid, that abideth in the Body, may (as well as it is possible) be destroyed ; and that the filth of its sower Mine being taken off, the Blood and Spirits be put into their natural motion. That he may attain his desire, where the Bowels, Stomach and Guts abound with a load of crude Acid-matter, they are to be cleansed with an easie Vomit, especially if Loathing or Vomiting trouble the sick Person. For which purpose Carduus Poffet-drink, Oxymel of Squills, and Salt of Vitriol, are excellent ; and the operation of the Medicine being over, to give an Opiate to allay the Commotion raised in the Blood by Vomiting, will be of great use.

XXXII. When the Disease takes its rise from violent motion, or immoderate drinking

traxit, vena pertundatur, præsertim si ægrotans in flore Ætatis, vel Plethoricus sit, ne cum oceano rubello nimis attenuato, in eruptionis stadii, (quod nimis sæpe accidit) claustris vasorum disruptis, purpurea anima effluat. Diæta & Regimen ex frigido temperatum imperetur. Sedulo cavendum est ne Sanguis incendio febrili tactus, in motus citatiores, ex musæo igne præter solitum luculentiori calefacto, ex stragulis acervatim injectis, aut ex pharmacis Cardiacis nimis officiose administratis, adigatur. Ubi tempestate præservida Variolæ ingruerint, omnis focus ex decumbentis cubiculo procul arceatur, ubi autem frigida inciderint, tanto rogo fruatur, quantus cum sanus esset, uti solebat, & toto decurrente hoc stadio interdum lecto abstineat; cibis ex jusculo hordeaceo, avenaceo, præparatis, vescatur. Pro siti depellenda cerevisia tenuis, Zythogala succo citri vel limonis instillato acidulata,

drinking of Spirituous Liquors, let a Vain be opened, especially if the Sick be in the flower of his Age, or Plethorick, lest the Blood, being too much thined in the stage of Eruption, and the Vessels enclosing it, being broken, the Person expire, which too often happens. Here give order for a Diet and Government temperately cool. And we must diligently beware, lest the Blood, touch'd with a febrile heat, be put into a more violent motion, by a greater Fire than ordinary in the Chamber, or too much Bed-cloaths, or Cordial Medicines too officiously given. When the Small Pox seizes any in very hot weather, let there be no Fire in the sick Persons Chamber, but when it happens in a cold season, let him have so much Fire as he was wont to have when he was well; and in all this stage let him sit up a days; let his Diet be Barley-broth, or Water-gruel. To quench his thirst, let him take at pleasure small Beer and Posset-drink, sharpened with the Juice of Citrons or Limons, Milk and Water, or simple Almond Milk. All Medi-
cines,

dulata, hydrogala, vel amygdala-
 tum simplex, ad libitum hauriantur.
 Omnia Medicamenta vel moderate
 calida (ni summa necessitas urgeat)
 procul amandentur, vix enim mini-
 mus caloris excessus, durante appa-
 ratu, cruori collatus, in stadii post-
 hac orituris corrigi potest: eodem
 prorsus ritu ac si lacti plus justo fer-
 vefacto coagulum confundatur, inde
 præcipationem, ad caseum optime
 fabricandum, frustra expectare licet.
 Absorbentia quæ Acidum in suo ip-
 sius sinu resipiunt, ac ejus energiam
 infringunt, in hoc affectu cicuran-
 do præter cætera excellunt, ex quo-
 rum classe sunt Corallia, Concha O-
 streorum, Cornu Cervi, Ebur, Terræ
 Sigillatæ variæ, Bolus Armena, Ter-
 ra Lemnia, Mater Perlarum, &c.
 Cathartica quæ in Stomachum de-
 trudenda sunt, Variolis in fieri exi-
 stentibus, plus mali quam commodi
 adferunt, quoniam hæc dentes Acidi
 ut plurimum acuunt, & vix hætenus
 ulla nota sunt Purgantia, quæ illud
 placide

tines, if but moderately hot, (unless
 on great necessity) are to be avoided;
 for scarce the least excess of Heat
 brought into the Blood at the time of
 their breaking out, can be corrected in
 the following stages: Like as Rennet, if
 it be put too hot into the Milk, we shall
 in vain expect a right Precipitation,
 for making the Cheese as it should be.
 Absorbents, which receive the A-
 cids into their Pores, and break their
 force, excel other Medicines in ta-
 ming this Affection; of which sort
 are Coral, Oyster-shells, Harts-horn,
 Ivory, Terra Sigillata, Bole Arme-
 niack, Lemnian Earth, Mother of
 Pearl, &c. Purgers, which are thrust
 into the Stomach, when the Small Pox
 are in Fieri, do more hurt than good,
 because they for the most part sharpen
 the Teeth of the Acid; and there are
 scarce any Purges yet known which
 do quietly turn it out: And for this
 cause it is (if I have some small ca-
 pacity at guessing) that the Person sick
 of the Small Pox commonly is worse
 after

placide eliminabunt; & hac de causa est, si quid nostra mediocritas conjicere potest, quod exacta Purgationis operatione, variolosus frequentissime pessum ruit: quare si Alvus sit obstrueta Clystere Lenitivo sollicitetur.

XXXIII. Symptomatis apparatus insidentibus brachius levis adhibendus non est: attamen quo minorum Medicamentorum vi demulcentur, eo feliciorem eventum prælagire licet. Nam observatione maxime vulgari constat, Crisin imperfectiorem aut protractiorem, à levissima Sanguinis præternaturali agitatione, perpetuo subsequituram, non absimili modo ac lacti liquore acido suffuso, si motu agitur, præcipitatio minus commoda obtinebitur. Ubi dolor capitis atrox horrendusque, deliria, vigiliæ, seu coma profundum, propter materiæ acris congelatæve, è cruoris sinu in cerebri Meninges metastasin excitantur, Epispastica acria nuchæ & pone aures, aliisque locis solitis, pro data occasione exterius

ap-

after the working of a Purge is over than before: Wherefore if the Belly be bound, let it be loosened by a Lenitive Clyster.

XXXIII. The Symptoms accompanying the appearance are not to be neglected: The fewer Medicines, they are mitigated with the better event may be presaged. For it appears by the most vulgar Observation, that a more imperfect and slow Crisis always follows from even the lightest Preternatural Agitation of the Blood, after the manner of Milk, if it be stirr'd while an Acid Liquor is pour'd into it, the Precipitation is not so well made. Where cruel and horrible Pains of the Head, Ravings, Watchings, or profound Sleep, are caused by reason of the translation of the sharp or congealed matter out of the Blood into the Meninges of the Brain, let sharp Blister-Plaisters be applied to the Nape of the Neck, between the Ears, and in other usual places, as occasion shall require; and let there
be

applicentur; interne vero Pulveres absorbentes, aquis huic morbo idoneis, admixti propinentur, quos hic loci enumerare ne Cramben rectam apponere videar, inutile duxi. Sin nullum levamen ægro ab his procurari possit, ad paregorica (nisi somnus profundus urgeat) seu ad anchoram sacram, ultimis præsertim hujus stadii diebus, confugiendum est. Ubi febris Petechialis, coagulationis egregiæ indicium, varioloso supervenit, ex Alexipharmacorum classe aliquot, Sanguinem coagulatum attenuandi & Acidum cicurandi virtute donata, præscribenda sunt. uti Pul. Gascon. Bez. Miner. Pul. Pannonicus Ruber. &c.

XXXIV. Ubi Diarrhæa, nunquam periculo carens, ad ultimum invalit, a primo ipsius ortu, utut mitis sit, CCC. Conf. Rosar. rub, Bolis variis, Rad. Tomentill. Pentaphill. Decocto. Albo, Diascord. aliisque Anodynis sistere eam oportet. Cerevisia & omnis potus floribus cerevisiæ fermentatus

be given inwardly Absorbent Powders, mixt with Waters, convenient for this Disease; which I think here needless to repeat, lest I should nauseate the Reader. But if the Sick find no relief from these, we must fly to Anodynes (unless in the case of profound Sleep) as the last Refuge, especially towards the extremity of this stage. Where the spotted Feaver, a sign of a great Coagulation, befalls the sick of the Small Pox, some such Antidotal Medicines as have a Vertue to thin the Coagulated Blood, and tame the Acid, are to be prescrib'd, as Gascoin Powder, Bezoar Mineral, Pulvis Pannonicus Ruber, &c.

XXXIV. Where a Flux, which is never without danger, shall invade an Adult Person, though it be mild, we ought to stop it at its very beginning with burnt Harts-horn, Conserve of Red Roses, with various Boles. Tormentil Roots, Cinqufoil, Decoctum Album, Diascordium, and other Anodynes. Beer, and all Drink fermented with

mentatus evitetur. Præter hæc jam memorata Phænomena, nonnumquam dolor, Pleuriticorum æmulus, ægrotantis latus obsidet, qui Phlebotomia, Linimentis, Fotibus, & aliis topicis Pleuritidi veræ dicatis, sublevandus est. Interdum gravis in intestina decumbit dolor, passionem colicam imitans, qui Unguentorum, Enematum, Laudani ope profligandus est.

XXXV. Quandoque spasmi horrendi Epilepsiæ persimiles, circa quartum ab insultu diem, ægrum infestant, qui Pustulis exhortis, sine artis subsidio sponte evanescere solent. Ubi autem diutius affligunt (quam fieri assolet) ope Medica averruncandi sunt. Hoc interim observandum est, quod in hoc studio vitæ & mortis jacta est alea, unde levissimus hic Error commissus, toto decurrente Morbo, crucem figet Medico. Præterea subinde accidit, quod nonnulli a regimine supra modum calido, & à re-

with Yeast, is to be avoided. Besides
 the now recited Phenomena, sometimes
 a Pain like that of the Pleurisie seizes
 the Patients side, which is to be eased
 by Bleeding, Liniments, and Fomen-
 tations, with other Topicks appropria-
 ted to the true Pleurisie. Sometimes
 a great Pain falls upon the Bowels,
 like unto the Collick, which is to be
 taken off by the help of Ointments, Cly-
 sters, and Laudanum.

XXXV. Sometimes horrible Con-
 vulsions, much like the Falling Sick-
 ness, infect the Sick about the fourth
 day of seisure; which, when once the
 Pustules are risen, are wont to vanish
 of themselves, without the help of Art.
 But when they afflict longer than they use
 to do, they are to be taken away by the help
 of Medicines. In the mean while, this is
 to be observed, that in this stage the Dy-
 ing of Life and Death is cast, whence the
 smallest Error committed here will ex-
 tremely trouble the Physician. More-
 over, it often happens that some die by too
 hot a Government, and Remedies that

à remediis justo rapidiorem motum humoribus conciliantibus, Pustulis nondum egressis, è vita migrent. Nam horum ope confusio magna non potest non excitari, & quicumque mediante Ebullitione, particularum congelatarum in massa Sanguinea volitantium, separationem expectaret, frustra esset. Volut anicula, quæ lactis Acido perfusi, & in Olla Ebullientis, igni fomitem subministrando, præcipitationem & portionis congelatæ à tenui subsidentiam moliretur.

XXXVI. Exactis Indicationibus ad apparatus accommodatis, nunc, ut ad Eruptionis Stadium pedem promoveamus, omnino convenit, quo sc: stadio materia coagulata in Massam Carneam critice eliminatur. Quoad Victum, idem genus cibi & potus hic indicatur, quod in priore stadio imperavimus. Quoad Regimen ante diem a Pustularum expulsionem secundum interdicta à lecto abstineat æger, ubi vero sese cubili commisit, oneretur stragulis nec pon-

put the Blood into too rapid a motion before the Pustules come out. For by means of these a great Confusion will be raised; and whosoever by means of the Ebullition should expect a separation of the curdled Particles swimming in the Blood, would expect it in vain. Just as an old Woman, who should endeavour the Precipitation and Subsidence of the curdled part of Milk, after the Runnet is mixed with it, and boiling in a Pot, by adding Fewel to the Fire.

XXXVI. Having finished the Indications, accommodated to the appearance, it will be convenient now that we consider the Stage of Eruption; in which Stage the coagulated matter is critically cast out into the Fleshly Mass. As to Diet, the same kind of Meat and Drink is here indicated which we ordered in the former stage. As to the Government, before the second day from the expulsion of the Pustules, let the Sick sit up a days; but when he goes to bed, let him have no more nor no less Bed-cloaths than

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he

ponderosioribus nec levioribus, quam quibus sanus uti assueverit, atque ut de latere in latus, & ab una parte lecti in alteram pro arbitrio suo se convertat, venia concedatur; ab inclementia tamen aeris præsertim hiemalis muniendus est, quoniam a frigoris susceptione Pustulæ eruptæ subsidere solent, & contra a nimio æstu sæpe confluunt. Quod animi pathemata spectat, metus tristitia, cogitationes intensæ, &c. quæ spiritus deprimendo acidum per totam Sanguinis ditionem adaugent, devitanda sunt. Ubi Medicus probe novit patientem Variolas nimis exhorrescere pia fraude utatur, ut æger (in quantum fieri licet) sui ipsius mali inscius teneatur, qua arte nonnulli salvi evaserunt, quando alii Pustulis egressis, & nullo exitiali Phænomeno stipatis, ubi primum Morbum cognoverunt, spiritus viresque statim subsiderunt, hinc omnia pessum iverunt donec morte præmatura e vita exceßerunt.

he used to have when he was well; and
 give him leave to turn himself from
 side to side, and from one side of the
 Bed to the other, as he pleases: Yet
 he is to be defended from the cold
 Air, especially in the Winter time, be-
 cause by taking cold, the Pustules that
 are come forth are wont to fall; and
 on the contrary, by too much heat they
 often flux. As to the Passions of the
 Mind, Fear, Sadness, Intense Thoughts,
 &c. are to be avoided, which by de-
 pressing the Spirits increase the Acid
 through the whole Empire of the Blood.
 When the Physitian certainly knows that
 the Patient fears the Small Pox, let
 him use some caution, that the Sick
 (as much as possible) may be kept ig-
 norant of his Disease; by which Art
 some have recovered, where others,
 when the Pustles have been out, without
 any deadly Symptom, when once they
 have known the Disease, their Spirits and
 Strength have presently fail'd. Hence
 all things have gone backward, until
 they have departed this Life by an un-
 timely Death.

XXXVII. Præter Symptomata, in superiori stadio depicta, quædam de novo excitantur; velut Hæmorrhagiæ profusæ, Tussis ferina, Ptyalismus, Urinæ suppressio. Circa primum hoc animadvertendum est, omnem Sanguinis Fluxum malum ominari, sive ex Naribus, Gingivis, Renibus, Utero, sive ex quacunque alia Corporis parte emanet. Eum igitur hic scopum nobis proponimus, ut omnia fræna cruori furioso & æstuanti imponantur, quibus ejus impetus consopiat. In hunc finem Vitriolica, ut Spiritus Vitrioli, Aqua Stiptica Regalis, cum mixtura convenienti guttatim pitifata, longe cætera antecedunt; præcipue si Regimen moderatum præscribatur, sine quo Remedia spasmodicorum parum valet. Cruor ex ægrorum Naribus, vel in flore Ætatis existentium, vel Sanguinem generosiori Liquore exaltum obtinentium, quandoque stillat. Topica horum Naribus indita (postquam diu fluxit) interdum

XXXVII. Besides the Symptoms describ'd in the former stage, some are excited a-new, as profuse Bleedings, a troublesome Cough, Spitting, suppression of Urine. As to the first, this is to be considered, that all Fluxes of Blood pretend evil, whether the Blood flows from the Nostrils, Gums, Reins, Womb, or any other part of the Body. Here then I propose this scope to my self, that all Checks may be put to the furious and hot Blood, by which its force may be allay'd. To this purpose Pulvis Ischemus, Vitriolicks, as Spirit of Vitriol, the Royal Stiptick Water taken by drops, by little and little, with a convenient mixture, far exceed the rest, especially if a moderate Government be prescrib'd, without which the most effectual Remedies do little good. Blood sometimes flows from the Nostrils of the Sick, either in the flower of Age, or of those that have their Blood exalted by drinking generous Liquors. Here Topicks put into their Noses (after it hath flow'd a great while) some-

interdum totum opus absolvunt. Sicut non ita pridem affini meo adolescenti accidisse memini, cujus Sanguis ad horas quamplures, liberrime profluxeat, ut omnis spes reconvalescentiæ erepta fuerit. Ad eum salutandum veniens, plurima Restrिंगentia, quæ mihi ad manum erant, parti laceratæ applicari curavi. Sed omnis operæ jactura fiebat, donec Linteum rasum chalcantio rubefacto conspersum, & dein in turundam formatum nari, ex qua Sanguis emanabat, indebatur; Cujus beneficio juvenis annuente Deo ab orci faucibus ereptus est.

XXXVIII. Tussim quod attinet sedandam, ubi Patientem nimis excruciat, Tabulis Bechicis, Glycyrrhyza, variisque ejus præparatis, Syr. Capill. vener. de Meconio, &c. ei occurrendum est, quibus ad solam operam addatur (si res exigat) Oleum Amydal. dulc. parca tamen manu, ne Alvi Fluxum inducat, qui quocunque Morbi stadio Adultis ingruit,

times do the whole business. As not long ago, I remember happen'd to a young Man, who was my Kinsman, whose Blood flow'd freely for many hours, so that there was little hopes of his Recovery: I coming to see how he did, ordered many Restringtons, which I had at hand, to be apply'd to the lacerated part; but all was labour in vain, until some Lint, sprinkled with Vitriol calcin'd to redness, and then made into a Tent, was thrust up into the Nostril, from whence the Blood flow'd; by the benefit of which, with the Blessing of God, the young Man was snatch'd from the Jaws of Death.

XXXVIII. As to stopping the Cough where it torments the Patient too much, we must help him by the Bechick Lozenges, Liquorish, and its various preparations, Syrup of Maiden Hair, Meconium, &c. to which, if need be, Oyl of Almonds may be added, yet sparingly, lest it bring a Flux of the Belly; which if it invades the Adult, in any stage of

gruat, nisi arte cohibetur, concla-
 matum est. Sin Infantes invaserit,
 melioris spei habetur, in quibus haud
 raro Morbum solvit, nec sine im-
 minenti Patientis tenelluli periculo
 sistitur. Hujus rei veritati, inscia-
 rum male locata Muliercularum ope-
 ra in darrhœa istiusmodi coercenda,
 suffragatur, quæ magnos Infantium
 cohortes tumulo demisit. Ut diar-
 rhœa Infantes, Variolis confluenti-
 bus correptos, ita salivatio Adultos,
 invadere solet, quorum neutri sine
 periculo frænum injicitur. Inter-
 dum sub primum eruptionis diem,
 quandoque serius salivæ Rivulus
 effluere incipit. Quamprimum au-
 tem se prodit, guttur partesque
 salivæ secretioni dicatæ, à frigoris
 externi injuria pannis laneis villosis
 mollibus croco interfutis, sedulo
 muniantur. Secundo tertiove die
 à Ptyalismi ortu præterlapso, Phleg-
 ma viscosum & vitiosum œsophagi
 parietibus, aliisque locis proxime
 adjacentibus, nonnunquam perti-
 naciter

this Disease, unless it can be stop'd by art, there's an end of him. But if it invades Infants, there is more hope; in whom sometimes it carrieth off the Disease; nor is it stop'd without imminent danger to the little Patient. The ill apply'd Labours of ignorant Women, in stopping such a Flux, witness to the Truth of this matter, which hath sent great numbers of Infants to the Grave. As a Flux is wont to trouble Infants taken with the fluxing Pox, so does Spitting the Adult; neither of which can be check'd without danger. Sometimes about the first day of the Eruption the Rivulet of Spittle begins to flow more slow; but as soon as it appears, let the Throat, and parts dedicated to the separation of the Spittle, be carefully defended from the injury of the external Cold with double Flannel, and Saffron sew'd up in it. The second or third day of Spitting being over, viscons and tough Flegm sometimes sticks very hard to the sides of the Gullet, and other places near adjacent; which is presently accompa-

raciter adhærescit ; quod inflammatio & deglutiendi difficultas statim comitatur. Ad quæ Accidentia pessime urgentia debellanda, ex usu sunt Gargarismi incidentes & emollientes, quibus saliva incrassata attenuatur faciliusque excreatur. Saccharata hic fugienda sunt, quippe horum viscositate (Expertus loquor) labia à se invicem ægre deduci queant, & Phlegma jam difficulter excreabile glutinosius redditur.

XXXIX. Aliquando Urinæ suppressio, à Spirituum Animalium *etragia* ut plurimum prognata, juvenes vegetosque aggreditur. Ad hunc effectum, periculosæ aleæ plenum, tollendum Sydenhamius imperat, ut æger lecto exurgat & adstantium ope cubiculum circum ambulet. Alii Salia Lixivialia ut Cineres Bufonum ex Arte calcinatos, præ cæteris commendant. Hoc insuper animadvertendum est, Symptomata sub Morbi initium orta si in hoc usque Stadium protendantur eodem

nied with an Inflammation, and difficulty of Swallowing. To overcome these very urgent Accidents, cutting and emollient Gargarisms are to be used, by which the thicken'd Spittle may be attenuated, and more easily spit out. Things sweetned with Sugar are here to be avoided, because by their Viscousness (I speak by Experience) the Lips can scarce be parted from one another, and the Phlegm already hard to be spit out, is made more glutinous.

XXXIX. Sometimes suppression of Urine, caused for the most part from the disorder of the Animal Spirits, seizes the Young and Lusty. To take away this very dangerous Effect, Sydenham orders that the Patient rise from his Bed, and by the help of the Attendants walk about the Chamber. Others commend Lixivial Salts above all things, as *Cineres Bufonum calcin'd by Art.* This moreover is to be consider'd, that the Symptoms that rise at the beginning of the Disease, if they are prolonged even unto this Stage, are
to

eodem remediorum apparatu esse expugnanda, excepta ἀνω καὶ κάτω evacuantium classe. Quod si nulla exanthemata egrediantur, quamvis de Liqueoribus Cardiacis nullam mentionem feci, tamen ubi vires deficiunt, quod ex debili arteriarum vibratione facile à Medico in sua arte perito dignosci potest, pitissandi sunt

XXXX. Finito tempore ad Expulsionem accommodato (cujus duratio in hac specie admodum incerta est, haud raro enim in octavum vel nonum usque diem prorogatur) Jam ad exarescentiæ tempus veniendum, quo tempore partes Sanguinis congelatæ, hætenus cruori confusæ, tuberculorum specie eliminantur atque expelluntur. Hinc Tragædiæ residuum, quod superest, in Carne musculosa peragitur. Ubi primum Pustulæ ad summam acuminationem evehuntur, quæ faciem obsident, primo crustam induunt, deinde quæ cæteris Corporis partibus inhærent. Quantum temporis in exarescentiæ stadio

to be cured by the same Provision of Medicines, except the Class of Purgers upwards and downwards. But if no Pox appear, although I have made no mention of Cordial Liquors, yet they may be drank by little and little, where the strength fails; which may be easily known from the weakness of the Pulse by a Physician skilful in his Art.

XXXX. Having finished the time accommodated to Expulsion (the duration of which, in this sort of Pox, is very uncertain; for it is sometimes prolong'd to the eighth or ninth day) We must now come to the time of their drying, in which time the curdled parts of the Blood, hitherto confused, are turn'd out and expell'd in the form of little swellings. Hence the rest of the Tragedy, which remains, is acted in the musculous Flesh. When once the Pustules are at the highest coppedness, those that are on the Face scab first; afterwards those on the other parts of the Body. How much time the stage of drying takes up, can scarce be predicted;

stadio teratur, vix prædici potest,
 nunc quatrIduo decursus hujus sta-
 dii perficitur, nunc in sextum sep-
 timumve diem protelatur. Post-
 quam verò Pustulæ plene impletæ
 sunt, cruor per Fibras carnosas, ab
 Abscessulis occupatas, libere non
 defertur, nam aliæ à furunculo-
 rum lateribus obsessæ coarctantur,
 aliæ à materia crassa eis impacta
 obstruuntur; hinc Sanguis in motu
 sufflaminatus fieri non potest, quin
 in obicem suum arietet, unde Do-
 lor tensivus, Inflammatio, & Fe-
 bris, quæ in præcedenti stadio ali-
 quantum suæ ferocitatis deposuit,
 prælium de novo instaurat, & cer-
 to certius ni Symptomata Pustu-
 larum, maturationem comitantia,
 Arte Medica demulceantur, ægro-
 tantem neci dabit. Nec quemvis
 facile latebit periculum satis mag-
 num à tanta furunculorum copia
 suboriturum, qui uno tantum Ab-
 scessu laboravit. Remedia in hoc
 casu necessaria sunt Opiata cum
 aquis

dicted; for sometimes the course of this Stage is finished in the space of four days, sometimes it is protracted to the sixth or seventh day. After the Pustules are quite full, the Blood is not carried freely through the carnosus Fibers, occupied by the little Abscesses; for some of them are streightned by being beset by the sides of the little boils, others are obstructed by gross matter implanted in them; hence the Blood, stop'd in its motion, it cannot but beat upon that which stops it; from whence a Tensive Pain, Inflammation, and a Feaver (which in the preceding stage abated something of its fury) begins the fight anew; and most certainly unless the Symptoms accompanying the maturation of the Pustules, are mitigated by the Medicinal Art, it will kill the Sick. Neither can any easily be ignorant of the danger (which is great enough) arising from so very little boils, who hath had only one boil. Remedies necessary in this case are Opiates mixt with Alexipharmacks,

aquis Alexipharmacis mixta, quæ
 toties in die, debito spacio unicui-
 que Dosi interposito, reiterari de-
 bent, usque dum Medicus voti pro-
 positi compos sit. Cardiaca quæ
 Naturam fatiscentem sublevare so-
 lent, hic summo usui sunt, si quid
 hariolando valeo, tum ad Portiun-
 culas concretas in Sanguinis effæti
 sinu adhuc delitescentes exturban-
 das, tum ad Massam ejus pene
 Spiritibus orbatam volatizandam.
 Fieri enim vix potest quin maxima
 crassamenti purpureri pars à tanta
 Acidi quantitate, ei suffusa, quo hic
 affectus jugiter stipatur, coaguletur.
 Hinc materies pro Spirituum Ani-
 malium genesi in primis Morbi die-
 bus rescinditur, cujus jactura, ad-
 ministrata convenienti diætâ, in
 secundo stadio minime resarcietur.
 Quid Mirum igitur, si in novissimo
 stadio patientis vires, ni artis ope
 adjuventur, deficient? Partem vero
 Sanguinis crassam floridamque in
 Abscessulorum fomitem abire ve-
 næsectio

macks, which ought to be repeated so
 oft in a day, (a due space being put
 between every Dose) untill the Physi-
 tian hath his proposed end. Cordials,
 which are wont to relieve failing Na-
 ture, are here of great use, if I have
 any good guess, as well to drive out
 the concreted Particles, yet lurking
 amidst the languid Blood, as to vola-
 tilize its Mass, almost bereav'd of its
 Spirits. For it can hardly be, but that
 most of the purple thick part will be
 coagulated by such a great quantity of
 Acid pour'd into it, as this Disease
 is always accompanied with. Hence
 the matter for the Generation of Ani-
 mal Spirits is cut off in the first days of
 the Disease; the loss of which can in no
 wise be made up, tho' a convenient Diet
 be prescribed in the second stage. What
 Wonder is it therefore, if in the last stage
 the Patients Strength fails, unless he
 be helped by Art? But that the thick
 and florrid part of the Blood goes to
 the nourishment of the little Abscesses,
 Blood-letting at the going away of the
 Small

nefectio sub Variolarum exitum celebrata (ut mihi videtur) fidem facit; ubi enim cruor Symptomatibus summe defævientibus in hoc stadio venis emittitur, & in vase refrigeratur, vice placentæ purpureæ crassamentum subalbidum viscosum haud una macula subrubra interpunctum, feri ad instar vi ignis inspissati habebitur. Hic etiam Sanguis cum lacte analogiam obtinere videtur, nam ubi illi ebullienti quidpiam Acidi instillatur, omnes particulæ caseosæ, in ejus ferro hospitantes illico agglomerantur, adeo ut serum ejus partium sulphurearum, & spirituosarum inops nutritum haurienti ulterius imperitare nequeat.

XXXXI. Circa hujus stadii curationem Medico magna incumbit difficultas, quoniam decumbentis vires à longa Morbi duratione & à magna Symptomatum farragine atteruntur & profigantur, ut lampadi vitali prorogandæ insufficientes fiant, nisi quid suppetiarum adferatur. Hac de

Small Pox (methinks) makes credible; for where the Blood is taken away in this stage, whilst the Symptoms are most outrageous, and permitted to cool in a Vessel, instead of a purple Cake, you will have a white viscons thick matter, like Serum inspissated by the force of Fire, without many spots of red. Here also the Blood seems to have an analogy with Milk; for when an Acid is pour'd into it when boiling, all the Cheesey Particles lodging in its serum, are gathered together; so that its serum being void of sulphurous and spirituous parts, can no more nourish him that drinks it.

XXXXI. The Physitian finds great difficulty about the Cure of this Stage; because the Patients Strength is worn out and wasted, by the long duration of the Disease, and diversity of Symptoms; so that it is insufficient to continue the vital Lamp, unless it have some help. For this cause I think it will be very profitable to give now and then a spoonful of Canary, whereby

de causa rem maximæ utilitatis fore
 autumavi, vinum Canarium subinde
 cochleatim exhibere, quo Natura
 fatiscens, ad moleculas concretas
 Sanguini adhuc inhærentes ejicien-
 das, erigatur. Pro victu juscula
 avenacea, quibus cochleare unum
 vel alterum vini generosi urgentibus
 languoribus addatur, panis tostus
 cerevisia intinctus, vel cum butyro
 interdum concedantur, & ut Tiquo-
 ris vel cibi nonnihil singulis horis,
 ad eorum transitum faciliorem præ-
 standum, deglutiatur, Author sum.
 Regimen temperatum observetur,
 ut æger nec æstu torreatur, nec cæli
 inclementiæ objectetur. Ubi vero
 ex frigore admissio, seu ex quocunque
 alio accidenti, Pustulæ subsident,
 earum elevatio cum aq. Theriac. E-
 pidem. Pulv. Gascon. Theriac. An-
 drom. Sale Volat. CC. Armon, &c.
regimine etiam conformi, procuretur.

XXXII. Symptomatibus salivatio-
 ni annexis, hisce diebus ingravescen-
 tibus, cura levis impendenda non est:

uti

by sinking Nature will be raised up to cast forth the loads of the concremented matter, yet remaining in the Blood. For Diet, Water-gruel with a spoonful or two of generous Wine added (the faintings urging) may be allowed, or a Toast in Beer, or with Butter, may be sometimes given; and I order some Liquor or Food to be taken every hour, that thy may be able to swallow the more easily. A temperate Government must be observed, that the Sick may be neither scorched with Heat, nor exposed to the cold Air. But where the Pustules fall from Cold taken, or any other accident, let them be raised again with Treacle Water, Epidemick Water, Gascoyn Powder, Venice-Treacle, Vol. Salt of Harts-horn, and of Armoniak; and also by a fitting Government.

XXXXII. The Symptoms accompanying the Spitting growing bad, in these days we must take no small care: Such are Pain, with inflammation of the Gullet, difficulty of Swallowing

uti sunt dolor œsophagi inflamma-
torius, deglutiendi difficultas, sali-
væ concretio, & dein totalis ejus
suppressio, quæ subitam ægrotanti,
ni remediorum vi sublata sint, suf-
focationem intentant. Apparatus
pharmaceutici in hos fines idonei,
sunt gargarismi incidentes & atte-
nuantes, siphonis ope sæpius de die
ingesti, quibus phlegma glutinosum
ductus salivales oppilans, vel œso-
phagi parietibus adhærens, everritur
faciliusque excreatur. Ego Vario-
losus ipsissimis his symptomatibus
affectus & pene deploratus, garga-
rismum ex sem. anisi fœnic. dulc.
liquerit. cui colato mel rosar. spi-
ritu armoniaci saturatum suffusum
erat, concinnari curavi; quo tertia
vel quarta quaque hora os collui,
& ore colluto, cochlear unum vel
alterum ejusdem mixturæ successu
vix expectando deglutivi. Nonnun-
quam gutturis fistula tanta crustu-
larum cohorte obsidetur, & æger
ne guttulam potulenti quidem hau-
rire

lowing, thickning of the Spittle, and then its total suppression ; which quickly choaks the Patient, unless taken away by the help of Medicines. The Medicinal Provisions, convenient for these ends, are Cutting, and attenuating Gargarisms, injected with a Syringe many times in a day, by which the glutinous Phlegm, stopping the Salival Ducts, or adhering to the sides of the Gullet is scowr'd off, and more easily spit out. I once having the Small Pox, and affected with these very Symptoms, and almost past hopes, caus'd a Gargarism to be made of the decoction of Aniseed, sweet Fennel-Seed, and Liquorish, to which being strain'd Mel Rosarum, saturated with Spirit of Salarmoniack was added, with which I wash'd my Mouth once in three or fours hours ; and having wash'd my Mouth, swallow'd a spoonful or two of that mixture, with unexpected success ; sometimes the Throat is so full of Scabs, that the Sick cannot drink
a drop

rire valeat. Ad hanc Obstructionem tollendam, spongia apici virgulæ, ex osse cetaceo fabrefactæ, firmiter alligetur, illaque Oleo Amygd. dulc. intincta per œsophagum deferatur, ut illius vi Pustulæ confluentes separentur, & facta separatione, forbile quid in horas deglutiat. Quandoque salivatio ita deficit, ut omni Gargarismorum tribu in auxilium accersito redintegrari nequeat, & hinc mortem præforibus stare prædicere liceat, ni intumescencia extremorum, vel Fluxu Urinæ Diabetico, vi Naturæ vel Artis excitato, Ptyalismus defectus compensetur. Puritus, à Crustularum Faciei insidentium rigidate humorisque acrimonia ortus, molestias vix ferendas creans, Oleo Amygdal. dulc. Sper. ceti, Oleo Hyper. jusculis subpinguibus sublevandus est, & penna his intincta singulis fere horis facies demulceatur.

a drop of any Liquor. To take away this Obstruction, let a Spunge be ty'd fast to the end of a small Rod of Whale-bone, and being dipt in Oyl of Almonds, let it be thrust down the Patients Throat, that by the force thereof the confluent Pustules may be separated; and the separation being made, let him take some Suppings every hour. Sometimes the Spitting is so stopped, that it cannot be brought again to flow by the help of all the tribe of Gargarisms; and then we may predict, that Death is at the door, unless the swelling of the extream parts, or a Diabetick Flux of Urine raised by the force of Nature or Art, make amends for this defect of Spitting. Itching from the stiffness of the Scabs on the Face, and Acrimony of the Humours, causing a trouble scarce to be born, is to be eased with Oyl of sweet Almonds, of Spermaceti, of St. John's Wort, and fattish Broths; and let the face be anointed with a Feather dip'd in these, almost every hour.

XXXXIII. Reliqua Symptomata, ut Vigiliæ, Deliria, Diarrhœa, Hæmorrhagiæ, &c. in præcedentibus Stadiis excitata, atque huc usque protensa, eadem medendi methodo debellantur, perinde ac si superiora stadia nondum exacta fuissent. Ubi febris, intermittentis typum induens, jam oritur, eam domandi gratia Cortex Peruvianus cæteris præluet. Crustulis decidentibus è lecto surgat, horaque una vel alterà ad summum elapsa nidum repetat, per biduum in eo decumbat, dein ad libitum surgat. Appetitu restituto, sordes in primis viis & humores effæti in Corporis habitu delitescentes, purgantibus ter ad minimum reiterandis, exturbentur, quibus detentis sæpissime gravissimis affectibus laxatur janua. Notatu perdignum est Appetitu & Corporis Temperie nondum restitutis, cathartica fortiora nullatenus administranda esse; quoniam semina acetosa, Sanguini adhuc perfusa,

XXXXIII. The other Symptoms, as Watchings, Ravings, a Flux, Bleeding, &c. excited in the preceding Stages, and continued till now, are vanquish'd by the same method of Cure as if the former Stages were not finished. Where a Fever, like an Intermittent, arises, the Peruvian Bark excels the rest for taming it. The Scabs being fallen off, let the Patient rise, and go to Bed again after an hour, or two at most, and lie there for two days, and then rise at pleasure. The Appetite being restor'd, the filth in the Stomach and Bowels, and the dis-spirited Humors stagnizing in the habit of the Body, are to be carried off, by Purging twice or thrice; which foul matter being detained, thereby occasion is given to many grievous Distempers, and it deserves to be noted, that strong Purges are in no wise to be given till the Appetite and Temperature of the Body be restored; because the sower Seeds, as yet dispers'd through

perfusa, ab his exacerbata, novam procellam intentant.

XXXXIV. Ubi Acidi reliquiae, nondum subactae, in massa Sanguinea stabulantur (licet Pustulae suas exuvias in totum deposuerint) inappetentia adest, cum calore praeternaturali nunc continuo nunc intermittente, sudores nocturni, ægro molestias facessunt, quæ margaritis ocul. cancr. pulvere patrum, vino generoso oppugnanda sunt. Cruore admodum depauperato spirituumque inope, particulæ ejus glutiniores & æquo concretiores per vasculorum ramulos impulsæ, nonnquam partibus adenosæ impinguntur, unde Parotides & affectus strumosi ortum trahunt. Nonnunquam Massæ Carnosæ illiduntur ejusque tubulosas Fibras obstruunt, hinc tumores, ulcerum antecessores originem sumunt. Quandoque ossium porulos infarciunt, hinc eorum caries oritur. Interdum plurimos musculosæ carnis tubulos obsident, ut motus

the Blood, being exasperated by them, threaten a new disorder.

XXXXIV. Where (the Relicks of the Acids are not yet overcome, altho' the Scabs may be quite fallen off) there is want of Appetite, with a Preternatural Heat, sometimes continual, sometimes intermitting, and Night-Sweats which trouble the Sick, these are to be vanquish'd by Pearls, Jesuits Powder, Generous Wine. The Blood being very much depauperated and dispirited, its more glutinous and too much concreted Particles drove through the Branches of the small Vessels, are sometimes thrown upon the Glandulous Parts; whence Tumors behind the Ears, and Strumous Effects have their Original. Sometimes they lie upon the Carnous Mass, and obstruct its tubulous Fibers. Hence Tumors, the forerunners of Ulcers, take their Original. Sometimes they obstruct the Pores of the Bones, hence their Rottenness proceeds. Sometimes they get into the Tubes of the musculous Flesh, so that the motion

tus spirituum cruorisque per eos denegetur, unde grangrænæ sphacelusque oriuntur. Medicamenta Interna, hisce morbosis affectibus accommodata, sunt incidentia sale volatili gaudentia atque spirituosa, quibus viæ obstructæ referantur, cruor spissus attenuatur, & circulationi ineptus motu citiori circumvehitur. Quando Lympha viscosa horum ope fluiditatem adeptæ fuit, ex alvo per Phlegmagoga educatur. Externe, præmissis universalibus, Ulceribus detergentia, Acidum temperantia, & infarctos tubulos in Ulcus dehiscens referantia, quæ sine unguentis sarco- ticiis dictis, totum opus absolvunt, applicentur. Ubi sphacelus Fati imminentis sæpe prænuncius partem aliquam occupavit, illius curationi remediis summe aperientibus incumbendum. Inter quæ Fetus Lixiviales, cum foliis herbarum calidarum incoctis, & Spiritu Vini saturati, Camphora in Spir. Vini rectific. dissoluta,

of the Blood and Spirits is deny'd through them; from whence Gangrenes and Mortifications are produced. Internal Medicines, accommodated to these morbus Affections, are cutting Medicines, full of a volatile Salt and spirituous Things; by which the obstructed Passages are opened, the thick Blood attenuated, and what is unfit for Circulation, carried about with a swifter motion. When the viscous Lympha is made fluid by the help of these, let it be carried out of the Belly by Purgers of Phlegm. Let there be applied externally (universals being premis'd) things cleansing Ulcers, attenuating Acids, and opening the stuff'd Tubes that end in the Ulcers, which perform the whole Work without Ointments, called Sarcoticks. Where a Mortification, often the fore-runner of imminent Death, hath possessed any part, we must endeavour its Cure by Remedies mightily opening. Among which Lixivial Fomentations, with the Leaves of hot Herbs boiled therein, and

soluta, Tinct. Myrrhæ & Aloes, Vitellum Ovi, Terebinth. Ven, Ther. Androm, Spir. Armon. præ cæteris quibuscunque mihi hæctenus notis, principatum obtinent. His enim ex arte administratis Hydropicum præter propter septuagesimum agentem annum, cujus crus sphacelo quatuor digitos longo & tres lato obsessum erat, à morte eripui, nec non Melancholium Hydropico coætaneum in quo pollex pedis ex inopia spirituum necrosi tentabatur, (eo præciso) remediis supra præscriptis, stupentibus Chyrurgis à morte instanti liberavi.

• XXXXV. Ab eadem quoque causa subinde ophthalmia & oculorum maculæ oriuntur, quorum curatio plerumque incassum tentatur, donec intemperies Sanguinis omnino corrigatur. Hac autem correctâ Colli-riis ex aq. Rosar. Plantag. Trochisc. alb. Rhasis, Vitriol. alb, Melle, &c. concinnatis, haud difficile fugantur. Ubi porrigo surfuracea faciei infidet, cicatrices

and saturated with Spirit of Wine, Camphire dissolved in rectified Spirit of Wine, Tincture of Myrrh and Aloes, the Yolk of an Egg, Venice-Turpentine, Venice-Treacle, Spirit of Sal armoniack, are the chief of all I have yet known. For by these, administred according to Art, I saved from Death an Hydropick Person about Seventy Years of Age, whose Leg was mortified four Fingers in length, and three in breadth. I also, by the fore-prescrib'd Medicines, saved from imminent Death a Melancholick Person, as old, whose great Toe was mortified (cut off) and cured, to the astonishment of the Chyrurgions.

XXXXV. From the same cause Inflammations and spots in the Eyes arise, whose cure is for the most part attempted in vain, until the Intemperies of the Blood is wholly corrected. But this being done, they are easily taken away by Colliriums, compounded of Rose or Plantane Water, with Troch. alb. Rhasis, white Vitriol and Honey, &c. Where a Scurf, like Bran, possesses

cicatrices atque foveas aspectu turpes subinferens, hisce cutis fæditatibus melius consulitur, debitam humoribus crasin inducendo, quam universas Linimentorum tribus in subsidium accersendo. Observatu denique dignissimum est, nullum gravem affectum, Variolas excipientem, remanente Sanguinis morbosa diathesi, extirpari posse. Hac autem radice extirpata, nullus dubito quin Accidentia ab ea germinantia Pharmacis & Regimine jam præscriptis (Benedicente Deo) operato sunt retrocessura.



FINIS.

posses the Face, causing scars and pits,
 foul to behold, these Blemishes of the
 Skin are better provided against, by
 inducing a due Crasis to the Humors,
 than by the assistance of all the tribe
 of Linements. And lastly, it is most
 worthy to be observed, that no grie-
 vous Affection following the Small Pox
 can be extirpated, whilst the morbus
 disposition of the Blood remains. But
 that being rooted out, I doubt not but
 the Accidents springing from thence
 (with God's Blessing) will recede, ac-
 cording to ones wish, by the Medicines
 and Government lately prescribed.

THE END.

The Translator to the Reader.

HAVING met with this Treatise of the Small Pox, writ by Dr. Phillips, wherein its Causes and Symptoms are mechanically explained, and a rational Cure accordingly proposed; conceiving that it might be of some advantage to my Neighbours (who are generally once in their Lives troubled with it) to give it an English Dress, I have taken the trouble of Translating it; and to satisfy the Inquisitive that I have done the Author Justice, have Printed the Latin opposite to the English.

Here any that have the Small Pox may see their Distemper analitically explained, and by the Prognosticks determine whether they are in danger or no, whether they are prudently treated by their Nurses, and what a vast Risk those People run, who innocently commit themselves to the Government of Women, who commonly treat all their Patients alike; whereas by the foregoing Discourse it's evident, that one Species of this Distemper vastly differs from the other; so that those Medicines which are proper in this Species, are pernicious in that; and the Remedies which are advantageous in this Stage, are noxious in the other. Here is a Cynosura, whereby the Judicious may safely steer their Vessels by those Rocks and Sands, on which the Ignorant split or strand theirs.

If any shall receive Benefit from these Labours of mine, the End which I first proposed will be obtained by

T. E.

24